

OT/TRER 16

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PUBLICATION



TELECOMMUNICATIONS

Research and Engineering Report 16

MEASURED AND PREDICTED LONG-TERM
DISTRIBUTIONS OF TROPOSPHERIC
TRANSMISSION LOSS

U.S.
DEPARTMENT
OF COMMERCE

Office of
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Institute for
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JULY 1971

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ORIGIN: 89102



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MEASURED AND PREDICTED LONG-TERM DISTRIBUTIONS OF TROPOSPHERIC TRANSMISSION LOSS

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JULY 1971

OT/TRER 16

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402
Price \$2.75

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MEASURED AND PREDICTED LONG-TERM DISTRIBUTIONS OF TROPOSPHERIC TRANSMISSION LOSS

A. G. Longley, R. K. Reasoner, and V. L. Fuller

This report summarizes measurements of tropospheric transmission loss and its long-term variability for nearly 800 paths in various parts of the world. The measurements were made at frequencies from 40 MHz to 10 GHz over distances which range from 10 to 1000 km. Terrain profiles and cumulative distributions of both observed and predicted losses are plotted for more than 500 of these paths. A preliminary analysis of differences between observed and predicted values is included.

Key Words: Cumulative distributions, location variability, long-term variability, measurements, predictions, tropospheric propagation.

INTRODUCTION

This report summarizes transmission loss data which have been acquired over a period of years, and compares distributions of measured values with those calculated using methods described by Rice et al (1967) and Longley and Rice (1968). All measured values have been converted to basic transmission loss, defined as the system loss that would occur between loss-free isotropic antennas, free of polarization and multipath coupling losses. Basic transmission loss, expressed in decibels, is then the sum of the system loss and the path antenna gain. The latter may be appreciably less than the sum of the free space gains when high-gain antennas are used. A method developed by Hartman and Wilkerson (1959) was used to calculate loss in antenna gain. Rice et al (1967) show relationships between basic transmission loss, field strength and attenuation relative to free space.

Data for paths included in this report were obtained from many sources. In the United States a long-term program of measurements was carried out by the Central Radio Propagation Laboratory,* with assistance from the Federal Communication Commission, other agencies and several universities. A good deal of data from other countries was provided by Study Group V of the CCIR, and much was obtained by searching the scientific literature. About half of the radio data described here has been published previously but in only a few instances have path profiles been shown. We have made every effort to make all path information as complete and accurate as possible, but undoubtedly some errors and omissions occur.

Although the data coverage is large, we do not have path parameters and recorded data for many common carrier and military systems. The world-wide extent of such systems is indicated in a report by Gunther (1966), who lists and maps all tropospheric systems completed up to July, 1965.

MEASURED VALUES OF TRANSMISSION LOSS

For almost all paths the data represent distributions of hourly median values of transmission loss. In some cases they represent 15, 20, or 30 minute medians whose distributions can not be distinguished from those of hourly medians, but for a few paths such as 2201 and 2202 in figure 2.5 instantaneous values were recorded. Their distributions represent a combination of both long-term and short-term variability. These differ from distributions of hourly medians chiefly in the large values that are not exceeded 99 per cent or more of the time. For path 2201 for example, the loss not exceeded 99.99 per cent of the time is about 20 dB greater than that not exceeded 99 per cent of the time. Such an increase is not characteristic of distributions of hourly median values.

* The Central Radio Propagation Laboratory was a predecessor of the Institute for Telecommunication Sciences.

Long-term variations caused by slow changes in atmospheric refraction, turbulence and stratification show diurnal, seasonal and regional differences. Such variations are discussed by Rice et al (1967) while Williamson et al (1960) show seasonal and year-to-year variability for a large number of transhorizon paths in the United States. In general, these show that transmission losses are greater and less variable in winter than in summer, with maximum losses occurring on winter afternoons.

In the present study, only period-of-record distributions are considered because for most of the paths individual hourly median values and dates and hours of recording are not available. In many cases, data were recorded for a year or more and the distributions represent all-year conditions, but paths with data for much shorter recording periods are included. The latter may be somewhat influenced by seasonal effects.

Information about the measurement paths is presented in tables 1 and 2, where the paths are arranged in order by path number. These path numbers are rather arbitrarily chosen path designators. Table 1 lists the locations of transmitting and receiving antenna terminals, their geographical coordinates when known, and the year and period of recording. Table 2 lists path information and transmission loss data. The column headings represent the following parameters:

F --- radio frequency in MHz

D -- path length in km

DH -- terrain irregularity Δh in m

NS -- minimum monthly mean value of surface refractivity

HTG, HRG -- heights above ground in m of the transmitting and receiving antennas, respectively

H -- number of horizon obstacles

HLT, HLR -- heights in m of the horizon obstacles, above mean sea level

DLT, DLR -- distance in km of each horizon obstacle from its corresponding terminal

THETA -- the angular distance θ in mr

LB OBSERVED -- observed values of basic transmission loss not exceeded for 1, 10, 50, 90, and 99 percent of all hours

LBCR -- calculated reference value of basic transmission loss

TN 101 -- L_{bcr} calculated by methods of Rice et al (1967)

ESSA 70 -- L_{bcr} calculated by a modification of the Longley and Rice (1968) method described by Longley and Reasoner (1970)

All paths marked with an asterisk are shown in the figures which follow table 2.

PREDICTED VALUES OF TRANSMISSION LOSS

Tropospheric transmission loss depends on characteristics of the atmosphere and of terrain. The most important atmospheric parameter for predicting a long-term median reference value of transmission loss is the refractive index gradient near the earth's surface. The surface gradient largely determines the bending of a radio ray as it passes through the atmosphere. We allow for regional differences in average atmospheric conditions by defining an "effective earth's radius" as a function of the minimum monthly mean value of surface refractivity. Other atmospheric effects are allowed for by empirical adjustments to the calculated median which allow for differences in climate, and estimates of variability relative to the median defined for several climates by Rice et al (1967).

The effects of terrain are taken into account in the prediction methods, which are based on various terrain parameters. Long-term reference values of basic transmission loss L_{bcr} are calculated using the point-to-point methods described by Rice et al (1967), coded as TN 101, and a modification of the area prediction described by Longley and Rice (1968) and coded as ESSA 70. The latter method was modified to include an empirical estimate for line-of-sight paths (Longley and

Reasoner, 1970), and special calculations for paths over isolated obstacles. The method for calculating diffraction loss over irregular terrain was not otherwise changed.

The point-to-point prediction methods (Rice et al 1967) were developed and adjusted to agree with data from about 70 transhorizon paths in the United States which are included in this report. The Longley-Rice (1968) model was developed to summarize data from several thousand spot measurements made with mobile equipment in the United States. None of these data are included in the present report.

TERRAIN PROFILES AND CUMULATIVE DISTRIBUTIONS

Terrain profiles and measured and predicted cumulative distributions of basic transmission loss are plotted for paths whose terminal coordinates are known and where sufficient data are available to be considered representative of the values for a year. When coordinates are not known for both terminals we cannot plot a great circle terrain profile and these paths are omitted from the figures even though data for rather long periods may be available. The profiles are drawn using an effective earth's radius which depends on the minimum monthly mean value of surface refractivity.

Some of the differences between predicted and measured median values may be caused by terrain clutter, such as buildings and trees, which has not yet been included in the prediction models. Such surface clutter would increase transmission loss, especially at UHF and higher frequencies. Other differences may result from inaccurate or inadequate topographic maps used to draw terrain profiles, or from short measurement periods which may represent seasonal rather than yearly conditions. In general, somewhat less information is available to us for paths in countries other than the United States and errors in interpretation or inaccuracies in recording results may occur.

The data presented here were recorded in several countries with different climatic conditions. For all paths in the United States and in West Germany a continental temperate climate is assumed in the predicted variability. Predicted distributions for paths in the British Isles and from them to the European continent are for a maritime temperate climate, overland or oversea. Oversea values are used only for paths with both horizons on the sea. This is quite arbitrary as in several cases paths which are largely over water have one or both horizons on land. The climatic conditions in Japan differ markedly from those in the British Isles partly because the terrain is quite rugged and the prevailing winds have traversed a large land mass. For these reasons a continental rather than a maritime temperate climate is assumed in Japan.

The figures are grouped as follows: Part 1-line-of-sight paths, Part 2-diffraction paths, Part 3-forward scatter paths. Within each group the figures are arranged first by country and then by path length. Each path is identified by its path number, transmitter and receiver locations, path length and frequency. Further information can be obtained by referring to tables 1 and 2. In many instances, recordings were made between terminal locations at several frequencies and with several combinations of antenna heights. Such paths are grouped together with the terrain profile followed by observed and predicted distributions of basic transmission loss arranged in order of increasing frequency.

Part 1 Line-of-Sight Paths

Under average atmospheric conditions the terminals for 96 of the paths listed in tables 1 and 2 are within radio line of sight. Figures 1.1 through 1.38 show terrain profiles and distributions of values of basic transmission loss for about 80 paths in the United States, the United Kingdom, Japan and West Germany. They represent frequencies from 40 MHz to 10 GHz, recorded over 30 different terrain profiles that range from 10 to 180 km in length. The organization of path information

is illustrated by figures 1.1 and 1.2 for paths 187 to 191, which show the terrain profile from Clausen to Eglin Air Force Base, Florida, followed by observed and calculated distributions of hourly median values of basic transmission loss at frequencies of 40.5, 75.5, 165.2, 455 and 952 MHz. Referring to table 1, the period of recording for each of these paths was more than 770 hours, and table 2 shows that the antenna heights were similar. Thus figures 1.1 and 1.2 show the changes in level and distribution of basic transmission loss as frequencies are increased from 40 to 950 MHz over a short line-of-sight path.

The paths in this group are considered to be within radio line of sight even though many do not provide first Fresnel zone clearance under average atmospheric conditions. This is especially true at the lower frequencies. For instance in figures 1.1 and 1.2 first Fresnel zone clearance is provided at 455 and 952 MHz but not at the three lower frequencies. Several of the profiles show good clearance of the radio ray above terrain at one end of the path, but not at the other end. Under these conditions the calculated values coded TN 101, based on geometric optics, tend to underestimate the transmission loss. An empirical estimate coded as ESSA 70 shows considerably better agreement with measurements in these cases. This estimate, developed by Longley and Reasoner (1970), is based on terrain irregularity, frequency, effective antenna heights and path length. Considering all line-of-sight paths listed, the TN 101 values underestimate the loss by more than 10 dB, while the ESSA 70 values are much closer to those observed.

An interesting profile from the Orkney Islands to the Shetland Islands is shown in figure 1.23. Under "normal" atmospheric conditions, the terminals for paths 2168 and 2169 are within radio line of sight, but a decrease in surface refractivity or change in the refractive index profile could at times allow the sea surface to become a diffracting obstacle. For other measurements from these terminals with lower

antennas, paths 2170 and 2171, figure 2.56, the sea surface obstructs the direct ray path and the median value of transmission loss is increased by about 10 dB.

Part 2 Diffraction Paths

All paths for which diffraction is usually the dominant propagation mechanism are included in this group. These are paths over a single or double isolated obstacle and transhorizon paths of intermediate length where diffraction is the dominant mechanism at least half of the time. Longer paths, where propagation is largely by means of forward scatter, are considered in part 3. There is no clear-cut dividing line between transhorizon diffraction and scatter paths, but those where diffraction and scatter losses are approximately equal are included in Part 2.

Profiles and distributions of measured and predicted values of basic transmission loss for diffraction paths are shown in figures 2.1 to 2.80. They are divided into the following four groups: single isolated obstacle, double isolated obstacle, common horizon and transhorizon paths. The arrangement of figures is illustrated by paths 2116 to 2124, figures 2.9 and 2.10, which show transmission over a single-obstacle path from Sutton Coldfield to Green Hailey, England with several antenna height combinations at frequencies of 58.3, 180.4, 495 and 593.6 MHz. These show increased long-term median values of basic transmission loss and increased variability with increased frequency.

2.1 Single isolated-horizon paths

Diffraction loss over a single isolated obstacle is calculated using knife-edge diffraction theory with an allowance for the effects of terrain reflections as described by Rice et al (1967) section 7. In the computer method, ESSA 70, we assume terrain effects are negligible when the height of the antenna above average terrain exceeds half the width of a first Fresnel zone. For the TN 101 calculations Fresnel clearance is estimated by

inspection of the terrain profile. For a few paths, 319, 320, and 321 in figure 2.3, the additional attenuation caused by "rounding" of the mountain top is included in the TN 101 prediction but not in the ESSA 70 calculation.

Knife-edge diffraction paths usually show less long-term variability than others of the same length. For this special case variability is calculated as though the path consists of two line-of-sight paths in tandem. The separate distributions are then convoluted as described by Rice et al (1967) to obtain the total path distribution.

Only about half of the 70 single horizon paths listed in tables 1 and 2 are shown in the figures. Those shown in figures 2.1 to 2.14 are for frequencies from 50 MHz to 9 GHz recorded over 12 different profiles ranging from about 90 to more than 400 km in length.

2.2 Double isolated-horizon paths

Paths with more than one isolated horizon are considered as double knife-edge diffraction paths. Several methods suggested for approximating diffraction attenuation over more than one obstacle were studied by Wilkerson (1966). Of these a simple technique which is widely applicable is used here. The attenuation is calculated as though the path consists of two single knife-edge paths, one from the transmitter to the second ridge and the other from the first ridge to the receiver. The sum of these two values of attenuation is added to the free space loss to obtain the predicted basic transmission loss for the entire path. When the obstacles are close together as in figures 2.27 and 2.30 long-term variability is calculated in the same way as for a single knife-edge path. Otherwise it is calculated for the entire path in the usual way.

This group includes 22 paths shown in figures 2.15 to 2.30 at frequencies from 40 MHz to 7 GHz recorded over 15 terrain profiles which range from 60 to 260 km in length.

2.3 Common horizon paths

We treat paths with a single horizon not isolated from surrounding terrain as a special case of diffraction over irregular terrain. Paths are considered to have a common horizon when there is less than 0.1 km between the calculated transmitter and receiver horizons. With changes in the refractive index structure of the atmosphere, the terminals for such paths may be within radio line of sight at times or may become two-horizon paths at other times. A typical example is from Cheyenne Mtn summit to Haswell, Colorado, figures 2.33 and 2.34.

This group of 10 common horizon paths, shown in figures 2.31 to 2.36 include frequencies from 60 MHz to 4.4 GHz recorded over five different profiles.

2.4 Transhorizon diffraction paths

This group consists of transhorizon paths of intermediate length where diffraction is the dominant mechanism at least half of the time. Rather large differences between the TN 101 and ESSA 70 predictions are noted in some cases, with the latter usually showing less loss.

For paths in England and West Germany with both horizons on the sea, a maritime temperate climate overseas is assumed. At frequencies of 200 MHz, the small losses predicted for small percentages of the time are not observed (figures 2.56, 2.58, 2.60 and 2.63), but at 1898 MHz much less than the predicted loss is observed (figure 2.75). This effect is probably the result of superrefraction and ducting conditions.

This group of 62 transhorizon diffraction paths, shown in figures 2.37 to 2.80 includes frequencies from 58 MHz to 9 GHz recorded over 41 terrain profiles.

Part 3 Forward Scatter Paths

By far the largest group of paths for which we have long-term recordings are tropospheric scatter paths. Detailed path profiles and distributions of hourly median values of transmission loss are plotted for about 325 scatter paths in figures 3.1 to 3.201. The paths are ordered first by country and then by path length within each group. The figures include distributions of data for about 135 paths over 70 different terrain profiles in the United States, 78 paths within the British Isles, 40 between the British Isles and Continental Europe, and 70 in Western Europe and Japan.

For all U. S. paths, figures 3.1 to 3.71, we have used a continental temperate climate for the predicted distributions. In general, the slopes of predicted and measured distributions agree very closely even though the path locations range from the east to the west coast across the comparatively dry central part of the country. A few paths on the east coast (figures 3.48 and 3.71) show much less loss than that predicted for small percentages of time. These probably represent the occurrence of rather strong ducting conditions during the recording period. Such conditions are not common for any large percentage of time in the continental United States.

The paths in figures 3.1 to 3.71 range from about 120 to 1000 km in length with frequencies ranging from 60 to 4000 MHz. With some exceptions the predicted distributions show rather good agreement with the observed distributions.

Predicted distributions for paths within the British Isles, figures 3.72 to 3.131, are for a maritime temperate climate, based on curves for various frequency ranges shown in Rice et al (1967). In general the slopes of the distributions of measured and predicted values are in good agreement.

A group of paths from the European continent to the British Isles is of rather special interest. These are considered to be "oversea" paths only if both horizons are on the surface of the sea. An examination of figures 3. 132 through 3. 161 shows good agreement in both slope and level between measured and predicted distributions. A rather high incidence of trapping by ducts and/or reflections from elevated layers is indicated in the unusually small transmission losses that occur for small percentages of the time. This is particularly common on the longer paths and at the higher frequencies. For example the over sea paths from Scheveningen, Netherlands to Happisburgh, Flamborough Head and Newton-by-the-Sea, England (figures 3. 144 and 3. 150 to 3. 154) show more variability over the longer than the shorter paths at VHF, 94 and 187 MHz, and a great deal more variability at UHF than at VHF. Paths from England to West Germany, figures 3. 159 to 3. 161, with horizons on land show trapping effects even at VHF and should probably be considered as oversea rather than mixed land and sea paths.

A continental temperate climate was assumed in calculating distributions for 13 paths in West Germany. The calculated and measured distributions agree well in both slope and level with the exception of path 2367, figure 3. 170. This path from Berlin-Nikolassee to Helgoland extends into a coastal area and shows the effects of a maritime climate.

We used a continental temperate climate to predict transmission loss distributions for 93 paths in Japan, shown in figures 3. 172 to 3. 193. While, in general, the predicted distributions agree well with measured values there are notable exceptions particularly at frequencies above 1000 MHz over rather long paths that are largely over the sea. Typical of these are the paths shown in figures 3. 189 and 3. 191 where the distributions are much steeper than predicted. By contrast figures 3. 190 and 3. 193 show little variability for long overland paths even at 1317 and 2120 MHz.

A few paths in Canada, France and Italy are shown in figures 3.194 to 3.201. For, Italy, we assumed a maritime temperate climate while in Canada and France a continental temperate climate was used.

SUMMARY

Long-term distributions of hourly-median values of transmission loss are presented for a large number of paths located in several countries and ranging in length from about 10 to 1000 km. The data represent line-of-sight, diffraction and forward scatter propagation mechanisms, and in many cases, the effects of superrefraction and ducting.

We calculated long-term reference values of basic transmission loss for all paths where sufficient terrain information is available. The predictions were calculated using methods described by Rice et al (1967) coded as TN101 and by a modification of a computer method described by Longley and Rice (1968) coded as ESSA 70. Estimates of median values and long-term variability about the median were obtained from a series of curves for various climates (Rice et al 1967). These curves are empirical, based on data available when they were developed.

A series of 320 figures show terrain profiles and measured and calculated distributions of transmission loss for more than 500 of these paths where sufficient data and profile information are available. With some exceptions these show good agreement between measured and predicted values especially where forward scatter is the dominant mechanism. The differences ΔL between predicted and measured median values of basic transmission loss were calculated for all plotted paths where observed medians are available (475 paths). For several groups of paths the mean difference $\overline{\Delta L}$, and the standard deviation $\sigma_{\Delta L}$ of the differences are listed in table 3.

Table 3. Differences Between Predicted and Measured Long-Term Median Values of Basic Transmission Loss in Decibels

| Type of Path | No. of Paths | TN 101 | | ESSA 70 | |
|--------------------------|--------------|-----------------------|---------------------|-----------------------|---------------------|
| | | $\overline{\Delta L}$ | $\sigma_{\Delta L}$ | $\overline{\Delta L}$ | $\sigma_{\Delta L}$ |
| Line of Sight, All Paths | 77 | -11.5 | 9.7 | -0.5 | 8.3 |
| f < 1000 MHz | 47 | -13.5 | 9.3 | -2.0 | 7.8 |
| f > 1000 MHz | 30 | - 8.8 | 9.9 | 1.9 | 8.6 |
| Diffraction, All Paths | 119 | - 2.4 | 7.5 | -3.8 | 8.0 |
| Irregular terrain | 73 | - 3.2 | 7.4 | -4.4 | 7.3 |
| Isolated obstacle | 46 | - 1.0 | 7.5 | -2.9 | 9.2 |
| Scatter, All Paths | 279 | - 4.0 | 6.5 | -4.6 | 6.7 |
| United States | 121 | - 3.9 | 6.2 | -4.7 | 6.5 |
| United Kingdom | 66 | - 4.5 | 7.0 | -4.3 | 7.2 |
| North Sea | 18 | - 6.4 | 5.4 | -6.4 | 5.4 |
| Other | 74 | - 3.3 | 6.9 | -4.2 | 7.0 |

$\overline{\Delta L}$ is the mean value of ΔL in each group where $\Delta L = L_{bm}$ (predicted) - L_{bm} (observed), and L_{bm} is a long-term median value.
 $\sigma_{\Delta L}$ is the standard deviation of ΔL .

For these line-of-sight paths the empirical estimates calculated by ESSA 70 clearly show better agreement with measurements than the values calculated by TN101 methods. For all groups of diffraction and scatter paths differences between the methods of calculation are small and may be considered to be negligible.

The data in the present study include recordings made for periods as short as three weeks, while the predictions represent all-year medians. The rather large values of $\sigma_{\Delta L}$ undoubtedly reflect the widely differing periods of recording with seasonal differences, and inadequate information for some paths, as well as prediction error. An earlier study, based on data recorded for a year or more over well-documented scatter paths

in the United States, yielded an estimate of prediction error, $\sigma_c = 3.6$ dB. This value represents the results of an analysis of the effects of the length of the measurement period with a resulting adjustment (Barsis et al 1962).

For each group of paths we also obtained the differences between calculated reference values L_{bcr} and medians of measured values. In all groups closer agreement was obtained than that between calculated and measured median values shown in table 3. This suggests that the adjustment to the reference value, $V(0.5, d_e)$ described by Rice et al (1967), may be too great. Further statistical analysis will be the subject of a separate paper.

ACKNOWLEDGMENTS

This report is based on data acquired over a period of years under the direction of Mr. P. L. Rice. Much of the work in collecting, analyzing, and coordinating the data was done by the authors with assistance from other members of the group. Those who contributed to this work include Perry Elder, Dorothy Williamson, Myrtle Coyle, Patricia Whittaker and Peter Ratcliffe.

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TABLE 1. PROPAGATION PATH LOCATIONS AND PERIODS OF RECORDING

| PATH NO. | TRANSMITTER | | RECEIVER | | | YEAR | LENGTH OF RECORDING |
|----------|---------------------|------------|-------------|---------------------|------------|-------------|---------------------|
| | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | | |
| 1 | FRESNO CALIF | 36 50 49 N | 119 50 18 W | LIVERMORE CALIF | 37 43 43 N | 121 45 13 W | 51 499 HR |
| 2 | SACRAMENTO CALIF | 38 38 09 N | 121 33 11 W | LIVERMORE CALIF | 37 43 43 N | 121 45 13 W | 53-54 2293 HR |
| 3 | PITTSBURGH PA | 40 26 46 N | 79 57 49 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 52-53 6262 HR |
| 5 | LINCOLN NEBR | 40 49 17 N | 96 39 43 W | GRAND ISLAND NEBR | 40 55 37 N | 98 26 00 W | 51-52 4795 HR |
| 6 | SAN DIEGO CALIF | 32 43 17 N | 117 04 14 W | SANTA ANA CALIF | 33 43 35 N | 117 54 26 W | 51-53 4865 HR |
| 7 | SEATTLE WASH | 47 37 57 N | 122 20 59 W | PORTLAND ORE | 45 32 29 N | 122 30 29 W | 52-54 6577 HR |
| 8 | DALLAS TEXAS | 32 46 46 N | 96 43 34 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 50-53 23294 HR |
| 9 | LONGVIEW TEXAS | 32 26 57 N | 94 43 35 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 51-52 6451 HR |
| 12 | PORTLAND ORE | 45 30 56 N | 122 43 54 W | SEATTLE WASH | 47 39 12 N | 122 18 17 W | 51-53 9315 HR |
| 13 | HOUSTON TEXAS | 29 45 25 N | 95 21 55 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 49-51 9702 HR |
| 15 | ABILENE TEXAS | 32 17 13 N | 99 44 20 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 50 332 HR |
| 16 | FRESNO CALIF | 37 04 39 N | 119 26 00 W | LIVERMORE CALIF | 37 43 43 N | 121 45 13 W | 52 436 HR |
| 17 | CHICO CALIF | 39 44 00 N | 121 47 10 W | LIVERMORE CALIF | 37 43 43 N | 121 45 13 W | 51 1205 HR |
| 18 | SHREVEPORT LA | 32 42 18 N | 93 52 54 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 51-53 13013 HR |
| 19 | ST LOUIS MO | 38 37 40 N | 90 11 17 W | URBANA ILL | 40 06 39 N | 88 13 11 W | 50-52 9667 HR |
| 20 | HOUSTON TEXAS | 29 45 31 N | 95 21 49 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 51-52 8488 HR |
| 21 | SAN ANTONIO TEXAS | 29 29 41 N | 98 24 54 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 49 1089 HR |
| 22 | SAN ANTONIO TEXAS | 29 29 41 N | 98 24 54 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 49-50 1705 HR |
| 23 | SAN ANTONIO TEXAS | 29 29 41 N | 98 24 54 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 50 1245 HR |
| 26 | MOBILE ALA | 30 46 26 N | 88 07 08 W | POWDER SPRINGS GA | 33 52 01 N | 84 43 12 W | 52-53 537 HR |
| 28 | ANDERSON S C | 34 30 53 N | 82 38 15 W | POWDER SPRINGS GA | 33 52 01 N | 84 43 12 W | 51-52 6025 HR |
| 29 | COLUMBUS OHIO | 39 58 21 N | 83 01 08 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-53 18382 HR |
| 31 | COLUMBUS IND | 39 11 05 N | 85 57 17 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 50-52 11854 HR |
| 32 | TAMPA FLA | 27 56 42 N | 82 27 29 W | FORT LAUDERDALE FLA | 26 06 17 N | 80 16 52 W | 52-53 6514 HR |
| 33 | DETROIT MICH | 42 22 40 N | 83 14 32 W | ALLEGAN MICH | 42 36 23 N | 85 57 07 W | 52-53 1508 HR |
| 34 | READING PA | 40 21 15 N | 75 53 56 W | LAUREL MD | 39 09 53 N | 76 49 23 W | 51-52 2344 HR |
| 35 | CHICAGO ILL | 41 52 57 N | 87 38 15 W | ALLEGAN MICH | 42 36 22 N | 85 57 07 W | 51-52 2416 HR |
| 36 | EASTON PA | 40 40 28 N | 75 12 28 W | STATE COLLEGE PA | 40 47 40 N | 77 51 52 W | 51-53 10875 HR |
| 37 | NEW YORK N Y | 40 43 20 N | 73 55 27 W | MILLIS MASS | 42 11 08 N | 71 20 10 W | 52-53 3368 HR |
| 38 | DALLAS TEXAS | 32 46 47 N | 96 47 56 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 49-50 3145 HR |
| 39 | YOUNGSTOWN OHIO | 41 01 22 N | 80 38 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 52-53 4120 HR |
| 41 | OLEAN N Y | 42 02 02 N | 78 26 46 W | STATE COLLEGE PA | 40 47 40 N | 77 51 52 W | 51-53 10187 HR |
| 42 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-52 8302 HR |
| 43 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 51 1982 HR |
| 44 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-53 20800 HR |
| 45 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 52 464 HR |
| 46 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 51 2081 HR |
| 47 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-53 19957 HR |
| 48 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 51-53 5924 HR |
| 49 | COLUMBUS OHIO | 39 52 29 N | 82 58 46 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 51-53 5231 HR |
| 51 | ORLANDO FLA | 28 34 28 N | 81 27 48 W | FT LAUDERDALE FLA | 26 06 17 N | 80 16 54 W | 52-53 4179 HR |
| 52 | PHILADELPHIA PA | 39 57 00 N | 75 09 16 W | LAUREL MD | 39 09 55 N | 76 49 23 W | 51-52 8284 HR |
| 53 | PITTSBURGH PA | 40 24 51 N | 80 02 24 W | LAUREL MD | 39 09 53 N | 76 49 23 W | 52-53 2723 HR |
| 54 | PITTSBURGH PA | 40 24 51 N | 80 02 24 W | STATE COLLEGE PA | 40 47 40 N | 77 51 52 W | 51-53 11190 HR |
| 55 | DETROIT MICH | 42 22 09 N | 83 04 38 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-53 18541 HR |
| 56 | YOUNGSTOWN OHIO | 41 03 30 N | 80 38 42 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-52 7217 HR |
| 57 | CHICAGO ILL | 41 55 35 N | 88 00 22 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 50-52 10699 HR |
| 58 | CLINGMANS PEAK N C | 35 44 05 N | 82 17 09 W | POWDER SPGS GA | 33 52 01 N | 84 43 12 W | 52-53 6514 HR |
| 59 | GREENVILLE S C | 34 56 29 N | 82 24 40 W | POWDER SPGS GA | 33 52 01 N | 84 43 12 W | 51 1820 HR |
| 60 | HARTFORD CONN | 41 46 26 N | 72 48 20 W | MILLIS MASS | 42 11 08 N | 71 20 10 W | 51-52 7646 HR |
| 61 | ARLINGTON VA | 38 53 45 N | 77 08 03 W | STATE COLLEGE PA | 40 47 40 N | 77 51 52 W | 51-52 5051 HR |
| 62 | WASHINGTON D C | 38 57 00 N | 77 04 45 W | STATE COLLEGE PA | 40 47 40 N | 77 51 52 W | 52-53 7511 HR |
| 63 | COLUMBUS OHIO | 40 02 51 N | 83 03 41 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50 306 HR |
| 64 | COLUMBUS OHIO | 40 02 51 N | 83 03 41 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50 152 HR |
| 66 | SACRAMENTO CALIF | 38 35 57 N | 121 26 54 W | LIVERMORE CALIF | 37 43 43 N | 121 45 13 W | 53-54 1522 HR |
| 71 | PITTSBURGH PA | 40 24 51 N | 80 02 24 W | LAUREL MD | 39 09 53 N | 76 49 23 W | 53 452 HR |
| 90 | ATLANTA GA | 33 45 52 N | 84 21 42 W | MANCHESTER TENN | 35 34 36 N | 86 04 40 W | 51 855 HR |
| 91 | ATLANTA GA | 33 45 52 N | 84 21 42 W | ADAIRSVILLE GA | 34 18 34 N | 84 56 07 W | 51 1288 HR |
| 92 | ATLANTA GA | 33 45 52 N | 84 21 42 W | FORSYTH GA | 33 09 11 N | 83 53 48 W | 51 1212 HR |
| 93 | ATLANTA GA | 33 45 52 N | 84 21 42 W | LUMBER CITY GA | | | 51 875 HR |
| 94 | ATLANTA GA | 33 45 52 N | 84 21 42 W | WAYCROSS GA | | | 51 814 HR |
| 95 | ATLANTA GA | 33 47 55 N | 84 23 12 W | MANCHESTER TENN | 35 34 36 N | 86 04 40 W | 51 253 HR |
| 96 | ATLANTA GA | 33 47 55 N | 84 23 12 W | ADAIRSVILLE GA | 34 18 34 N | 84 56 07 W | 51 464 HR |
| 97 | ATLANTA GA | 33 47 55 N | 84 23 12 W | FORSYTH GA | 33 09 11 N | 83 53 48 W | 51 448 HR |
| 186 | SCITUATE MASS | | | STEPHENVILLE CAN | | | 58 201 HR |
| 187 | CLAUSEN SITE FLA | 30 23 03 N | 86 26 51 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 775 HR |
| 188 | CLAUSEN SITE FLA | 30 23 03 N | 86 26 51 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 775 HR |
| 189 | CLAUSEN SITE FLA | 30 23 03 N | 86 26 51 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 758 HR |
| 190 | CLAUSEN SITE FLA | 30 23 03 N | 86 26 51 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 772 HR |
| 191 | CLAUSEN SITE FLA | 30 23 03 N | 86 26 51 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 757 HR |
| 192 | COUPLAND TOWER FLA | 30 35 29 N | 86 39 10 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 771 HR |
| 193 | COUPLAND TOWER FLA | 30 35 29 N | 86 39 10 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 774 HR |
| 194 | COUPLAND TOWER FLA | 30 35 29 N | 86 39 10 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 774 HR |
| 195 | COUPLAND TOWER FLA | 30 35 29 N | 86 39 10 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 759 HR |
| 196 | COUPLAND TOWER FLA | 30 35 29 N | 86 39 10 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 773 HR |
| 197 | WAGNER SITE FLA | 30 40 26 N | 86 20 21 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 772 HR |
| 198 | WAGNER SITE FLA | 30 40 26 N | 86 20 21 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 763 HR |
| 199 | WAGNER SITE FLA | 30 40 26 N | 86 20 21 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 778 HR |
| 200 | SAN DIEGO CALIF | 32 50 32 N | 117 14 56 W | SANTA ANA CALIF | 33 43 34 N | 117 54 25 W | 51-53 8412 HR |
| 201 | SAN FRANCISCO CALIF | 37 45 18 N | 122 27 07 W | LIVERMORE CALIF | 37 43 43 N | 121 45 13 W | 51-52 5212 HR |

TABLE 1. CONTINUED

| PATH | | TRANSMITTER | | RECEIVER | | | | YEAR LENGTH OF | |
|------|---------------------|-------------|-------------|----------------------|------------|-------------|-----------|----------------|--|
| NO. | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | RECORDING | | |
| 202 | OMAHA NEBR | 41 15 26 N | 95 57 02 W | GRAND ISLAND NEBR | 40 55 36 N | 98 26 00 W | 51 | 928 HR | |
| 203 | HOUSTON TEXAS | 29 44 02 N | 95 27 43 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 51-53 | 10558 HR | |
| 204 | BIRMINGHAM ALA | 33 29 24 N | 86 47 56 W | POWDER SPGS GA | 33 52 01 N | 84 43 12 W | 51-54 | 11331 HR | |
| 206 | CHICAGO ILL | 41 53 09 N | 87 37 56 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 51-53 | 9304 HR | |
| 208 | WILMINGTON DELA | 39 48 58 N | 75 31 50 W | LAUREL MD | 39 09 50 N | 76 49 21 W | 53-54 | 2186 HR | |
| 209 | COLUMBUS GA | | | POWDER SPRINGS GA | | | 54-56 | 19 MO | |
| 210 | CHICAGO ILL | 41 52 57 N | 87 38 15 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 51-53 | 9226 HR | |
| 211 | DALLAS TEXAS | 32 47 48 N | 96 48 24 W | AUSTIN TEXAS | 30 23 10 N | 97 43 35 W | 51-53 | 7897 HR | |
| 212 | CHICAGO ILL | 41 53 25 N | 87 37 25 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 50-51 | 3139 HR | |
| 213 | CHICAGO ILL | 41 53 25 N | 87 37 25 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 51-53 | 10787 HR | |
| 214 | CHICAGO ILL | 42 53 25 N | 87 37 25 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 51-53 | 10777 HR | |
| 215 | CHICAGO ILL | 41 53 25 N | 87 37 25 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 51-53 | 9831 HR | |
| 216 | CHICAGO ILL | 41 53 25 N | 87 37 25 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 51-53 | 10152 HR | |
| 217 | DETROIT MICH | 42 23 41 N | 83 08 58 W | ALLEGAN MICH | 42 36 22 N | 85 57 07 W | 52-53 | 2864 HR | |
| 219 | CHICAGO ILL | 41 52 57 N | 87 38 15 W | URBANA ILL | 40 06 39 N | 88 13 41 W | 50-51 | 2711 HR | |
| 222 | OMAHA NEBR | 41 15 26 N | 95 57 51 W | GRAND ISLAND NEBR | 40 55 36 N | 98 26 00 W | 51 | 1096 HR | |
| 223 | DETROIT MICH | 42 21 28 N | 83 03 56 W | HUDSON OHIO | 41 16 02 N | 81 27 42 W | 50-53 | 18358 HR | |
| 226 | YORK PA | | | LAUREL MD | | | 53-55 | 2 YR | |
| 228 | WILMINGTON DELA | 39 48 58 N | 75 31 51 W | LAUREL MD | 39 09 53 N | 76 49 23 W | 53 | 232 HR | |
| 229 | READING PA | | | LAUREL MD | | | 53-54 | 9 MO | |
| 233 | HOLYOKE MASS | | | HILLIS MASS | | | 54-55 | 1 YR | |
| 234 | SPRINGFIELD MASS | | | HILLIS MASS | | | 53-54 | 15 MO | |
| 244 | BIRMINGHAM ALA | 33 29 24 N | 86 47 56 W | POWDER SPGS GA | 33 52 01 N | 84 43 12 W | 53-54 | 739 HR | |
| 250 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 52-54 | 9628 HR | |
| 252 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 52-54 | 11782 HR | |
| 254 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52-54 | 9999 HR | |
| 256 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52-54 | 4683 HR | |
| 258 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 52-53 | 537 HR | |
| 260 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | FAYETTEVILLE ARK | 36 06 25 N | 94 06 25 W | 52-53 | 120 HR | |
| 262 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | SHERIDAN LAKE COLO | 38 21 11 N | 102 18 25 W | 54 | 236 HR | |
| 264 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 53 | 266 HR | |
| 266 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 61 | 232 HR | |
| 267 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 61 | 183 HR | |
| 268 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 61 | 186 HR | |
| 270 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 52-53 | 8535 HR | |
| 272 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 52-53 | 6967 HR | |
| 274 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52-53 | 6205 HR | |
| 276 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52-53 | 3153 HR | |
| 278 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 52 | 243 HR | |
| 279 | HASWELL COLO | 38 22 51 N | 103 09 21 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 58 | 26 HR | |
| 280 | HASWELL COLO | 38 22 51 N | 103 09 21 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 58 | 26 HR | |
| 290 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 54 | 1024 HR | |
| 292 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 54 | 909 HR | |
| 294 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 54 | 795 HR | |
| 296 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 548 HR | |
| 297 | KARVAL COLO | 38 37 55 N | 103 34 19 W | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | 63 | 76 HR | |
| 298 | KARVAL COLO | 38 37 55 N | 103 34 19 W | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | 63 | 147 HR | |
| 299 | PIKES PEAK COLO | 38 50 26 N | 105 02 38 W | GUN BARREL HILL COLO | 40 05 31 N | 105 07 18 W | 63 | 192 HR | |
| 300 | PIKES PEAK COLO | 38 50 26 N | 105 02 38 W | GUN BARREL HILL COLO | 40 05 31 N | 105 07 18 W | 63 | 315 HR | |
| 302 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | SHERIDAN LAKE COLO | 38 21 11 N | 102 18 25 W | 54 | 450 HR | |
| 303 | BEULAH COLO | 38 08 48 N | 104 56 56 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 60 | 10 DA | |
| 305 | BEULAH COLO | 38 08 48 N | 104 56 56 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 59-60 | 50 DA | |
| 307 | BEULAH COLO | 38 08 48 N | 104 56 56 W | PIKES PEAK COLO | 38 50 26 N | 105 02 42 W | 60 | 10 DA | |
| 308 | BEULAH COLO | 38 08 48 N | 104 56 56 W | PIKES PEAK COLO | 38 50 26 N | 105 02 42 W | 60 | 10 DA | |
| 310 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 52-54 | 7855 HR | |
| 311 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 54 | 599 HR | |
| 312 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 52-54 | 6132 HR | |
| 313 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 54 | 405 HR | |
| 314 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52-54 | 7007 HR | |
| 316 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52 | 1644 HR | |
| 317 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 53-54 | 675 HR | |
| 318 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 52 | 184 HR | |
| 319 | BEULAH COLO | 38 08 48 N | 104 56 56 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 59-63 | 1307 HR | |
| 320 | BEULAH COLO | 38 08 48 N | 104 56 56 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 59-63 | 1056 HR | |
| 321 | BEULAH COLO | 38 08 48 N | 104 56 56 W | TABLE MESA COLO | 40 08 54 N | 105 13 53 W | 63-64 | 163 HR | |
| 322 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | SHERIDAN LAKE COLO | 38 21 11 N | 102 18 25 W | 54 | 97 HR | |
| 323 | CHEYENNE MTN S COLO | 38 49 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 51 HR | |
| 324 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 47 HR | |
| 325 | CHEYENNE MTN S COLO | 38 45 50 N | 104 51 50 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 51 HR | |
| 330 | CHEYENNE MTN S COLO | 38 46 26 N | 104 51 43 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 52-54 | 5428 HR | |
| 332 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 52-54 | 6594 HR | |
| 334 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52-54 | 4748 HR | |
| 336 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52-54 | 2095 HR | |
| 338 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 53 | 134 HR | |
| 342 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | SHERIDAN LAKE COLO | 38 21 11 N | 102 18 25 W | 54 | 440 HR | |
| 350 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 52-53 | 3268 HR | |
| 352 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 53 | 1244 HR | |
| 354 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52-53 | 2932 HR | |
| 356 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52-53 | 862 HR | |
| 358 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 53 | 148 HR | |

TABLE 1. CONTINUED

| PATH NO. | TRANSMITTER | | | | RECEIVER | | | YEAR | LENGTH | DF |
|----------|----------------------|------------|-------------|--------------------|------------|-------------|-----------|------|--------|----|
| | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | RECORDING | | | |
| 370 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | KENORICK COLO | 38 34 08 N | 103 59 02 W | 54 | 531 | HR | |
| 372 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 54 | 483 | HR | |
| 374 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 54 | 593 | HR | |
| 376 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 305 | HR | |
| 382 | CHEYENNE MTN B COLO | 38 46 26 N | 104 51 43 W | SHERIDAN LAKE COLO | 38 21 11 N | 102 18 25 W | 54 | 140 | HR | |
| 385 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 60 | HR | |
| 389 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 54 | 48 | HR | |
| 390 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 52-54 | 312 | HR | |
| 392 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 52-54 | 247 | HR | |
| 394 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52-54 | 320 | HR | |
| 396 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52-53 | 108 | HR | |
| 398 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 52-53 | 137 | HR | |
| 400 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | FAYETTEVILLE ARK | 36 06 25 N | 94 06 25 W | 52-53 | 62 | HR | |
| 404 | FT CARSON COLO | 38 41 46 N | 104 49 48 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 53 | 59 | HR | |
| 410 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | KENORICK COLO | 38 34 08 N | 103 59 02 W | 52 | 65 | HR | |
| 412 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 52 | 33 | HR | |
| 414 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 52 | 65 | HR | |
| 416 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 52 | 25 | HR | |
| 418 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | ANTHONY KANS | 37 14 24 N | 97 53 53 W | 52 | 50 | HR | |
| 420 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | FAYETTEVILLE ARK | 36 06 25 N | 94 06 25 W | 52 | 40 | HR | |
| 425 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | SHERIDAN LAKE COLO | 38 21 11 N | 102 18 25 W | 54 | 106 | HR | |
| 429 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | GARDEN CITY KANS | 37 49 50 N | 100 51 22 W | 54 | 117 | HR | |
| 430 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | KENDRICK COLO | 38 34 08 N | 103 59 02 W | 54 | 53 | HR | |
| 431 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | KARVAL COLO | 38 37 55 N | 103 34 19 W | 54 | 83 | HR | |
| 432 | PIKES PEAK COLO | 38 50 20 N | 105 02 31 W | HASWELL COLO | 38 22 59 N | 103 08 28 W | 54 | 17 | HR | |
| 435 | GEORGIA TECH GA | | | LOST MTN GA | | | 49 | 12 | DA | |
| 436 | GEORGIA TECH GA | | | LOST MTN GA | | | 49 | 12 | DA | |
| 437 | GEORGIA TECH GA | | | LOST MTN GA | | | 49 | 12 | DA | |
| 438 | GEORGIA TECH GA | | | LOST MTN GA | | | 49 | 14 | DA | |
| 439 | GEORGIA TECH GA | | | LOST MTN GA | | | 49 | 14 | DA | |
| 440 | GEORGIA TECH GA | | | LOST MTN GA | | | 49 | 14 | DA | |
| 441 | GEORGIA TECH GA | | | POTTS MTN GA | | | 48-49 | 12 | DA | |
| 442 | GEORGIA TECH GA | | | POTTS MTN GA | | | 48-49 | 12 | DA | |
| 444 | GEORGIA TECH GA | | | RICH MTN GA | | | 48 | 9 | DA | |
| 445 | GEORGIA TECH GA | | | RICH MTN GA | | | 48 | 7 | DA | |
| 446 | GEORGIA TECH GA | | | RICH MTN GA | | | 48 | 7 | DA | |
| 447 | GEORGIA TECH GA | | | MT OGLETHORPE GA | | | 47-48 | 2000 | HR | |
| 448 | GEORGIA TECH GA | | | MT OGLETHORPE GA | | | 47-48 | 1 | YR | |
| 449 | GEORGIA TECH GA | | | MT OGLETHORPE GA | | | 47-48 | 1500 | HR | |
| 450 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | MITCHELLVILLE IOWA | 41 39 10 N | 93 21 00 W | 49-50 | 1172 | HR | |
| 451 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | WAUKON IOWA | 43 18 N | 91 27 W | 49 | 157 | HR | |
| 452 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 50 | 518 | HR | |
| 453 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 51 | 2071 | HR | |
| 454 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 51 | 1990 | HR | |
| 457 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 52-53 | 3100 | HR | |
| 458 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 52-53 | 1164 | HR | |
| 459 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 52-53 | 1864 | HR | |
| 460 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 52 | 191 | HR | |
| 461 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 52-53 | 1057 | HR | |
| 462 | CEDAR RAPIDS IOWA | 41 53 26 N | 91 42 40 W | QUINCY ILL | 39 58 22 N | 91 19 54 W | 52-53 | 2322 | HR | |
| 466 | BRIDGEPORT CONN | | | MILLIS MASS | | | 50-52 | 2 | YR | |
| 467 | BRIDGEPORT CONN | | | PRINCETON N J | | | 50-51 | 11 | MO | |
| 475 | GEORGIA TECH GA | | | TOLEN MTN GA | | | 48-49 | 21 | DA | |
| 476 | GEORGIA TECH GA | | | TOLEN MTN GA | | | 48-49 | 21 | DA | |
| 477 | GEORGIA TECH GA | | | TOLEN MTN GA | | | 48 | 15 | DA | |
| 480 | LEXINGTON MASS | 42 27 48 N | 71 16 10 W | SYRACUSE N Y | 43 00 41 N | 76 07 15 W | 57-58 | 4083 | HR | |
| 514 | NEW YORK N Y | | | PRINCETON N J | | | 46-47 | 3000 | HR | |
| 515 | NEW YORK N Y | | | SOUTHAMPTON PA | | | 46 | 2000 | HR | |
| 516 | NEW YORK N Y | | | LAUREL MD | | | 46-47 | 3325 | HR | |
| 519 | NEW YORK N Y | | | PRINCETON N J | | | 46 | 1100 | HR | |
| 534 | NEW YORK N Y | | | PRINCETON N J | | | 46-47 | 3000 | HR | |
| 535 | NEW YORK N Y | | | SOUTHAMPTON PA | | | 46 | 1950 | HR | |
| 536 | NEW YORK N Y | | | LAUREL MD | | | 46-47 | 2500 | HR | |
| 564 | SALISBURY MD | | | LAUREL MD | | | 55-56 | 18 | MO | |
| 570 | NORTH ADAMS MASS | | | MILLIS MASS | | | 57-58 | 7 | MO | |
| 572 | CORPUS CHRISTI TEXAS | | | KINGSVILLE TEXAS | | | 57 | 3 | MO | |
| 576 | COVEY HILL CAN | 45 01 06 N | 73 47 46 W | RIVERHEAD N Y | 40 54 38 N | 72 39 50 W | 55-56 | 14 | MO | |
| 577 | FRESNO CALIF | | | LIVERMORE CALIF | | | 55-56 | 11 | MO | |
| 578 | FRESNO CALIF | | | LIVERMORE CALIF | | | 55-56 | 9 | MO | |
| 581 | SAN FRANCISCO CALIF | | | LIVERMORE CALIF | | | 57-58 | 6 | MO | |
| 583 | WILKES-BARRE PA | | | LAUREL MD | | | 55-56 | 2705 | HR | |
| 585 | WILKES-BARRE PA | | | LAUREL MD | | | 55-56 | 6583 | HR | |
| 586 | ST PETERSBURG FLA | | | FT LAUDERDALE FLA | | | 55-56 | 2080 | HR | |
| 587 | NEW BRITAIN CONN | | | MILLIS MASS | | | 57-58 | 3500 | HR | |
| 588 | MOORESTOWN N J | 39 58 30 N | 74 54 36 W | ABERDEEN MD | 39 29 22 N | 76 08 08 W | 57 | 279 | HR | |
| 589 | MOORESTOWN N J | 39 58 30 N | 74 54 36 W | STERLING VA | 38 58 30 N | 77 29 20 W | 57 | 192 | HR | |
| 590 | MOORESTOWN N J | 39 58 30 N | 74 54 36 W | ABERDEEN MD | 39 29 22 N | 76 08 08 W | 55-56 | 301 | HR | |
| 591 | MOORESTOWN N J | 39 58 30 N | 74 54 36 W | STERLING VA | 38 58 30 N | 77 29 20 W | 55-56 | 262 | HR | |
| 592 | BRIDGEPORT CONN | | | RIVERHEAD N Y | | | 50-51 | 21 | MO | |
| 855 | BAFFIN ISLAND CAN | | | W GREENLAND | | | 58 | 400 | HR | |

TABLE 1. CONTINUED

| PATH NO. | TRANSMITTER | | | RECEIVER | | | YEAR | LENGTH OF RECORDING |
|----------|-----------------------|------------|-------------|-----------------------|------------|-------------|-------|---------------------|
| | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | | |
| 856 | GREENLAND | | | GREENLAND | | | 58 | 380 HR |
| 857 | W GREENLAND | | | INNER GREENLAND | | | 58 | 400 HR |
| 858 | GREENLAND | | | GREENLAND | | | 58 | 367 HR |
| 859 | GREENLAND | | | GREENLAND | | | 58 | 400 HR |
| 860 | GREENLAND | | | GREENLAND | | | 58 | 347 HR |
| 861 | GREENLAND | | | GREENLAND | | | 58 | 400 HR |
| 862 | E GREENLAND | | | ICELAND | | | 58 | 200 HR |
| 863 | YAKUTAT ALASKA | | | GUSTAVOIS ALASKA | | | 48 | 1 MO |
| 864 | THULE GREENLAND | 76 24 N | 68 44 W | CAPE DYER CAN | 66 40 N | 61 21 W | 57 | 488 HR |
| 900 | ROUND HILL MASS | 41 32 24 N | 70 55 51 W | WINSTON-SALEM N C | 36 09 45 N | 80 08 00 W | 56 | 10 MO |
| 903 | ROUND HILL MASS | 41 32 24 N | 70 55 51 W | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | 57 | 240 HR |
| 904 | ROUND HILL MASS | 41 32 24 N | 70 55 51 W | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | 57 | 240 HR |
| 907 | RED BANK N J | 40 20 22 N | 74 05 38 W | ROUND HILL MASS | 41 32 24 N | 70 55 52 W | 54-55 | 60 HR |
| 908 | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | ROUND HILL MASS | 41 32 24 N | 70 55 52 W | 53-55 | 3200 HR |
| 909 | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | ROUND HILL MASS | 41 32 24 N | 70 55 52 W | 53-55 | 2 YR |
| 917 | ROUND HILL MASS | 41 32 24 N | 70 55 52 W | REDBANK N J | 40 20 22 N | 74 05 38 W | 54-55 | 130 HR |
| 1026 | PHILADELPHIA PA | | | NEW YORK N Y | | | 56 | 1983 HR |
| 1123 | PHARSALIA N Y | 42 34 04 N | 75 45 37 W | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | 56-57 | 4500 HR |
| 1124A | PHARSALIA N Y | 42 34 04 N | 75 45 37 W | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | 56-57 | 3000 HR |
| 1124B | PHARSALIA N Y | 42 34 04 N | 75 45 37 W | CRAWFORDS HILL N J | 40 23 31 N | 74 11 13 W | 56-57 | 3009 HR |
| 1125 | HOMESTEAD FLA | 25 21 N | 80 27 W | VARADERO CUBA | 23 08 N | 80 17 W | 55 | 48 DA |
| 1126 | HOMESTEAD FLA | 25 21 N | 80 27 W | GUANABO (SITE B) CUBA | 23 N | 82 W | 55 | 18 DA |
| 1127 | HOMESTEAD FLA | 25 21 N | 80 27 W | GUANABO (SITE A) CUBA | 23 10 N | 82 08 W | 55 | 51 DA |
| 1128 | FLORIDA CITY FLA | 25 19 N | 80 24 W | GUANABO (SITE B) CUBA | 23 N | 82 W | 55 | 12 DA |
| 1129 | HOMESTEAD FLA | 25 21 N | 80 27 W | CABANAS CUBA | 22 59 N | 82 24 W | 55 | 16 DA |
| 1130 | FLORIDA CITY FLA | 25 19 N | 80 24 W | GUANABO (SITE B) CUBA | 23 N | 82 W | 55 | 9 DA |
| 1131 | FLORIDA CITY FLA | 25 19 35 N | 80 24 20 W | GUANABO CUBA | 23 09 49 N | 82 09 22 W | 55 | 1904 HR |
| 1132 | FLORIDA CITY FLA | 25 19 30 N | 80 24 16 W | GUANABO CUBA | 23 09 49 N | 82 09 19 W | 57-58 | 7425 HR |
| 1303 | WALKERS LOOKOUT AUSTL | 40 03 29 S | 148 04 53 E | MT OBERON AUSTL | 39 02 28 S | 146 20 46 E | 60 | 997 HR |
| 1304 | WALKERS LOOKOUT AUSTL | 40 03 29 S | 148 04 53 E | MT OBERON AUSTL | 39 02 28 S | 146 20 46 E | 60 | 585 HR |
| 1313 | HAMILTON NEW ZEALAND | 37 47 26 S | 175 14 02 E | PAEROA NEW ZEALAND | 37 23 01 S | 175 40 57 E | 60 | 1344 HR |
| 1355 | MONTEVIDEO UR | 34 53 27 S | 56 15 27 W | BUENOS AIRES ARG | 34 46 58 S | 58 10 12 W | 56 | 3452 HR |
| 1376 | PORT ETIENNE MAUR | 20 54 N | 17 01 W | NOUAKCHOTT MAUR | 18 09 N | 15 58 W | 58 | 317 HR |
| 1377 | PORT ETIENNE MAUR | 20 54 N | 17 01 W | NOUAKCHOTT MAUR | 18 09 N | 15 58 W | 58-59 | 505 HR |
| 1388 | YAOUNDE CAMEROON | | | EDEA CAMEROON | | | | |
| 1396 | M SILA ALGERIA | 36 N | 5 E | FME DUFDJRG ALGERIA | | | 58 | 1 MO |
| 1397 | YAOUNDE CAMEROON | | | EDEA CAMEROON | | | | |
| 1398 | YAOUNDE CAMEROON | | | DOUALA CAMEROON | | | | |
| 1399 | YAOUNDE CAMEROON | | | DOUALA CAMEROON | | | | |
| 1400 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | FORESTER FALLS CAN | 45 40 15 N | 76 48 41 W | 54 | 48 HR |
| 1401 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | FORESTER FALLS CAN | 45 40 15 N | 76 48 41 W | 54 | 48 HR |
| 1402 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | FORESTER FALLS CAN | 45 40 15 N | 76 48 41 W | 54 | 48 HR |
| 1403 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | FORESTER FALLS CAN | 45 40 15 N | 76 48 41 W | 54 | 48 HR |
| 1404 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | PETAWAHA CAN | 45 54 55 N | 77 33 14 W | 54 | 48 HR |
| 1405 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | PETAWAHA CAN | 45 54 55 N | 77 33 14 W | 54 | 48 HR |
| 1406 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | PETAWAHA CAN | 45 54 55 N | 77 33 14 W | 54 | 48 HR |
| 1407 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | PETAWAHA CAN | 45 54 55 N | 77 33 14 W | 54 | 48 HR |
| 1408 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | MATTAWA CAN | 46 17 56 N | 78 41 31 W | 54 | 48 HR |
| 1409 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | MATTAWA CAN | 46 17 56 N | 78 41 31 W | 54 | 48 HR |
| 1410 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | MATTAWA CAN | 46 17 56 N | 78 41 31 W | 54 | 48 HR |
| 1411 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | MATTAWA CAN | 46 17 56 N | 78 41 31 W | 54 | 48 HR |
| 1412 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | TILDEN LAKE CAN | 46 35 38 N | 79 38 30 W | 54 | 48 HR |
| 1413 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | TILDEN LAKE CAN | 46 35 38 N | 79 38 30 W | 54 | 48 HR |
| 1414 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | TILDEN LAKE CAN | 46 35 38 N | 79 38 30 W | 54 | 48 HR |
| 1414 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | TILDEN LAKE CAN | 46 35 38 N | 79 38 30 W | 54 | 48 HR |
| 1416 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | SILVER LAKE CAN | 46 45 42 N | 80 18 00 W | 54 | 48 HR |
| 1417 | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | SILVER LAKE CAN | 46 45 42 N | 80 18 00 W | 54 | 48 HR |
| 1437 | NORTH BAY CAN | 46 25 43 N | 79 28 18 W | SHIRLEY BAY CAN | 45 21 14 N | 75 52 48 W | 56 | 1 MO |
| 1438 | OTTAWA CAN | 45 26 09 N | 75 36 42 W | TORONTO CAN | 43 42 44 N | 79 14 04 W | 55-56 | 11 MO |
| 1439 | OTTAWA CAN | 45 26 09 N | 75 36 42 W | TORONTO CAN | 43 42 44 N | 79 14 04 W | 55 | 5 MO |
| 1440 | ST ANTHONY CAN | 51 20 55 N | 55 37 15 W | GANDER CAN | 48 57 01 N | 54 34 50 W | 53-54 | 6241 HR |
| 1441 | ST ANTHONY CAN | 51 20 55 N | 55 37 15 W | GANDER CAN | 48 57 01 N | 54 34 50 W | 53-54 | 5954 HR |
| 1442 | ST ANTHONY CAN | 51 20 55 N | 55 37 15 W | HARBOR MAIN CAN | 47 26 13 N | 53 10 30 W | 53-54 | 1298 HR |
| 1536 | FELDBERG/SCHWARZWALD* | 47 52 25 N | 8 0 23 E | SAVONA ITALY | 44 14 58 N | 8 16 48 E | 64 | 26 DA |
| 1537 | SAVONA ITALY | 44 14 58 N | 8 16 48 E | COLTANO ITALY | 43 39 33 N | 10 24 52 E | 64 | 22 DA |
| 1550 | SIDI SLIMANE AFRICA | 34 15 22 N | 6 21 35 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 160 HR |
| 1551 | SIDI SLIMANE AFRICA | 34 15 22 N | 6 21 35 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 196 HR |
| 1552 | SIDI SLIMANE AFRICA | 34 15 22 N | 6 21 35 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 145 HR |
| 1553 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 330 HR |
| 1554 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 337 HR |
| 1555 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 378 HR |
| 1556 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 49 HR |
| 1557 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | MORON SPAIN | 37 09 07 N | 5 35 00 W | 57 | 49 HR |
| 1558 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | UTRERA SPAIN | 37 10 25 N | 5 52 00 W | 57 | 24 HR |
| 1559 | SIDI SLIMANE AFRICA | 34 14 38 N | 6 03 26 W | UTRERA SPAIN | 37 10 25 N | 5 52 00 W | 57 | 4 DA |
| 1560 | SA ROCA MENORCA | | | CAMPO SA SPINA** | | | 54-55 | 1 YR |
| 1563 | SARDINIA | | | MENORCA | | | | |
| 1564 | SIDI SLIMANE AFRICA | | | SAN PABLO SPAIN | | | 58-59 | 7 MO |
| 1567 | ITALY | 41 N | 17 E | GREECE | 38 N | 20 E | 58 | 1023 HR |
| 1568 | ITALY | 41 N | 17 E | GREECE | 38 N | 20 E | 58 | 1035 HR |
| 1574 | BINIANCOLLA MENORCA | | | MARRUBIU SARDINIA | | | 58 | 1 YR |

*W GER **SARDINIA

TABLE 1. CONTINUED

| PATH | TRANSMITTER | | | RECEIVER | | | YEAR LENGTH OF | |
|-------|-----------------------|------------|-------------|-----------------------|------------|-------------|----------------|---------|
| NO. | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | RECORDING | |
| 1582 | CAMP DARBY ITALY | | | SAN GIULIANA ITALY | | | 61 | 1 MO |
| 1583 | MT BURRONE ITALY | | | SAN GIULIANA ITALY | | | 61 | 1 MO |
| 1584 | MT LIMBARA SARDINIA | | | PIANO DEI CORSI ITALY | | | 61 | 505 HR |
| 1585 | MT LIMBARA SARDINIA | | | CORNO ALLESCALE ITALY | | | 61 | 13 DA |
| 1586 | MT LIMBARA SARDINIA | | | STA AGUEDA MENORCA | | | 61 | 27 DA |
| 1587 | MT LIMBARA SARDINIA | | | PUIG MAJOR MALLORCA | | | 61 | 36 DA |
| 1588 | HUMOSA-MADRID SPAIN | | | PUIG MAJOR MALLORCA | | | 61 | 36 DA |
| 1589 | CONTR NARDELLO ITALY | | | WHEELUS AFRICA | | | 61 | 30 DA |
| 1590 | CONTR NARDELLO ITALY | | | WHEELUS AFRICA | | | 61 | 31 DA |
| 1592 | TURKEY | 36 40 00 N | 35 22 01 E | TURKEY | 37 53 30 N | 39 57 55 E | | 2 MO |
| 1593 | SKLOPA GREECE | | | DARDISTA GREECE | | | 63 | 5 MO |
| 1594 | PARNIS GREECE | | | CHIOS ISLAND GREECE | | | 64-65 | 100 DA |
| 1595 | SIVRI GREECE | | | PILION GREECE | | | 62-63 | 8 MO |
| 1596 | MARTINA FRANCA ITALY | | | KERKIRA ISLAND GREECE | | | 63 | 1 MO |
| 1597 | MONTESAROO ITALY | | | MICHALACADES GREECE | | | 63 | 10 MO |
| 1600 | WETHERSFIELD N Y | | | ITHACA N Y | | | 54 | 613 HR |
| 1601 | WETHERSFIELD N Y | | | ITHACA N Y | | | 54 | 407 HR |
| 1602 | BUFFALO N Y | | | ITHACA N Y | | | 54 | 650 HR |
| 1603 | BUFFALO N Y | | | ITHACA N Y | | | 54 | 316 HR |
| 1604 | FULTON N Y | | | ITHACA N Y | | | 54-55 | 1340 HR |
| 1605 | FULTON N Y | | | ITHACA N Y | | | 54-55 | 2516 HR |
| 1606 | ROCHESTER N Y | 43 09 05 N | 77 24 28 W | ITHACA N Y | 42 29 24 N | 76 27 11 W | 59-61 | 2 YR |
| 1609 | ROCHESTER N Y | 43 09 05 N | 77 24 28 W | ITHACA N Y | 42 29 24 N | 76 27 11 W | 59-61 | 2 YR |
| 1610 | ROCHESTER N Y | 43 09 05 N | 77 24 28 W | ITHACA N Y | 42 29 24 N | 76 27 11 W | 59-61 | 2 YR |
| 1700 | WILLIAMS AFB ARIZ | 33 18 22 N | 111 40 31 W | BLACKTAIL CANYON ARIZ | 31 33 42 N | 110 25 20 W | 58-59 | 10 MO |
| 1701 | BLACKTAIL CANYON ARIZ | 31 33 42 N | 110 25 20 W | WILLIAMS AFB ARIZ | 33 18 22 N | 111 40 31 W | 58-59 | 10 MO |
| 1702 | BLACKTAIL CANYON ARIZ | 31 33 42 N | 110 25 20 W | ELOY ARIZ | 32 44 10 N | 111 32 40 W | 59 | 306 HR |
| 1703 | ELOY ARIZ | 32 44 10 N | 111 32 40 W | BLACKTAIL CANYON ARIZ | 31 33 42 N | 110 25 20 W | 59 | 626 HR |
| 1704A | BENSON ARIZ | 31 57 33 N | 110 25 50 W | ENCINO NEW MEX | 34 37 21 N | 105 23 41 W | 58-59 | 7 MO |
| 1704B | BENSON ARIZ | 31 57 33 N | 110 25 50 W | ENCINO NEW MEX | 34 37 21 N | 105 23 41 W | 58-59 | 7 MO |
| 1704C | BENSON ARIZ | 31 57 33 N | 110 25 50 W | ENCINO NEW MEX | 34 37 21 N | 105 23 41 W | 58-59 | 7 MO |
| 1705A | BENSON ARIZ | 31 57 33 N | 110 25 50 W | ENCINO NEW MEX | 34 37 21 N | 105 23 41 W | 58-59 | 7 MO |
| 1705B | BENSON ARIZ | 31 57 33 N | 110 25 50 W | ENCINO NEW MEX | 34 37 21 N | 105 23 41 W | 58-59 | 7 MO |
| 1705C | BENSON ARIZ | 31 57 33 N | 110 25 50 W | ENCINO NEW MEX | 34 37 21 N | 105 23 41 W | 58-59 | 7 MO |
| 1708 | BENSON ARIZ | 31 57 33 N | 110 25 50 W | SANTA ROSA NEW MEX | 34 57 14 N | 104 35 40 W | 59 | 3 MO |
| 1709 | BENSON ARIZ | 31 57 33 N | 110 25 50 W | SANTA ROSA NEW MEX | 34 57 14 N | 104 35 40 W | 59 | 5 MO |
| 1710 | BENSON ARIZ | 31 57 33 N | 110 25 50 W | SANTA ROSA NEW MEX | 34 57 14 N | 104 35 40 W | 59 | 3 MO |
| 1711 | BENSON ARIZ | 31 57 33 N | 110 25 50 W | SANTA ROSA NEW MEX | 34 57 14 N | 104 35 40 W | 59 | 3 MO |
| 1712 | ELOY ARIZ | 32 44 10 N | 111 32 40 W | BLACKTAIL CANYON ARIZ | 31 33 42 N | 110 25 20 W | 59 | 262 HR |
| 1713 | BLACKTAIL CANYON ARIZ | 31 33 42 N | 111 32 40 W | ELOY ARIZ | 32 44 10 N | 111 32 40 W | 59 | 248 HR |
| 1715 | FT HUACHUCA ARIZ | 31 33 26 N | 110 22 28 W | RED ROCK ARIZ | 32 33 22 N | 111 22 49 W | 57 | 768 HR |
| 1716 | BENSON ARIZ | 31 57 33 N | 110 25 50 W | TELEGRAPH PASS ARIZ | 32 40 23 N | 114 18 20 W | 57 | 500 HR |
| 1717 | BENSON ARIZ | 31 57 33 N | 110 25 50 W | BELEN NEW MEX | 34 33 13 N | 106 38 38 W | 57 | 348 HR |
| 1800 | WAGNER SITE FLA | 30 40 26 N | 86 20 21 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 | 769 HR |
| 1801 | WAGNER SITE FLA | 30 40 26 N | 86 20 21 W | EGLIN MAIN BASE FLA | 30 28 33 N | 86 30 45 W | 56-57 | 764 HR |
| 1804 | HILLSTONE HILL MASS | 42 36 48 N | 71 29 38 W | SAURATOWN MT N C | 36 22 52 N | 80 21 14 W | 58 | 7 DA |
| 1805 | VERONA N Y | 43 08 32 N | 75 36 32 W | LIBERTY DAM MO | 39 23 03 N | 76 52 46 W | 56-57 | 293 HR |
| 1903 | SANTA BARBARA CALIF | 34 24 N | 119 50 30 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 58-59 | |
| 1904 | SANTA BARBARA CALIF | 34 24 N | 119 50 30 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 58-59 | 6 MO |
| 1905 | SANTA BARBARA CALIF | 34 24 N | 119 50 30 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 58-59 | |
| 1906 | SANTA BARBARA CALIF | 34 24 N | 119 50 30 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 58 | |
| 1907 | SANTA BARBARA CALIF | 34 24 N | 119 50 30 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 59 | |
| 1908 | POINT MUGU CALIF | 34 05 N | 119 03 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 58-59 | |
| 1909 | POINT MUGU CALIF | 34 05 N | 119 03 W | POINT LOMA CALIF | 32 41 30 N | 117 15 W | 58-59 | |
| 1978 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 65-67 | 27 MO |
| 1979 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 65-67 | 27 MO |
| 1980 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | HANNINGTREE ENG | 51 55 25 N | 1 05 20 E | 65-67 | 27 MO |
| 1981 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | BANDSEY ENG | 51 59 45 N | 1 25 00 E | 65-67 | 27 MO |
| 1982 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | PETERBOROUGH ENG | 52 30 26 N | 0 20 30 W | 65-67 | 27 MO |
| 1983 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | TACOLNESTON ENG | 52 31 03 N | 1 08 25 E | 65-67 | 27 MO |
| 1984 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 55-56 | 1 YR |
| 1985 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | HATFIELD ENG | 51 44 55 N | 0 14 20 W | 66-67 | 1 YR |
| 1986 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | BROOKMANS PARK ENG | 51 43 46 N | 0 10 38 W | 66-67 | 1 YR |
| 1987 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | HAPPISBURGH ENG | 52 49 42 N | 1 31 38 E | 63-64 | 6255 HR |
| 1988 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | TACOLNESTON ENG | 52 31 03 N | 1 08 25 E | 63-64 | 6254 HR |
| 1989 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | FELTWELL ENG | 52 28 50 N | 0 31 15 E | 63-64 | 5849 HR |
| 1990 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | MORBORNE HILL ENG | 52 30 26 N | 0 20 30 W | 63-64 | 5630 HR |
| 1991 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | SKEFFINGTON ENG | 52 37 21 N | 0 54 28 W | 63-64 | 5459 HR |
| 1992 | STRUMBLEHEAD WALES | | | ABERDARON WALES | | | 44 | 7 MO |
| 1993 | STRUMBLEHEAD WALES | | | ABERDARON WALES | | | 44 | 7 MO |
| 1994 | STRUMBLEHEAD WALES | | | ABERDARON WALES | | | 44 | 7 MO |
| 1995 | STRUMBLEHEAD WALES | | | ABERDARON WALES | | | 44 | 7 MO |
| 1996 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 64-65 | 16 MO |
| 1997 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | SHRIVENHAM ENG | 51 35 35 N | 1 39 20 W | 65 | 11 MO |
| 1998 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | STON ON THE WOLD ENG | 51 55 42 N | 1 43 30 W | 65 | 11 MO |
| 1999 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | ALDEBURG ENG | 52 08 56 N | 1 36 08 E | 64-65 | 1 YR |
| 2000 | ALEXANDRA PALACE ENG | 51 35 30 N | 0 07 41 W | LEEDS ENG | 53 43 52 N | 1 36 46 W | 46-48 | 2 YR |
| 2001 | ALEXANDRA PALACE ENG | 51 35 30 N | 0 07 41 W | LARGO WARD SCOT | 56 15 27 N | 2 51 28 W | 49-50 | 6 MO |
| 2002 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | WREXHAM WALES | 53 02 39 N | 2 58 24 W | 49-50 | 10 MO |
| 2003 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | REDRUTH ENG | 50 12 56 N | 5 14 42 W | 49-50 | 10 MO |

TABLE 1. CONTINUED

| PATH NO. | TRANSMITTER | | | RECEIVER | | | YEAR LENGTH OF RECORDING | |
|----------|----------------------|------------|-----------|-----------------------|------------|-----------|--------------------------|---------|
| | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | | |
| 2004 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | START POINT ENG | 50 13 36 N | 3 39 38 W | 47 | 4 MO |
| 2005 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | CHRISTCHURCH ENG | 50 45 18 N | 1 48 00 W | 49-50 | 10 MO |
| 2006 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | BARTLEY ENG | 50 55 21 N | 1 33 00 W | 47 | 4 MO |
| 2007 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | BAGLEY CROFT ENG | 51 43 30 N | 1 15 35 W | 47 | 4 MO |
| 2008 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 49-50 | 7209 HR |
| 2009 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | CAMBRIDGE ENG | 52 10 50 N | 0 09 54 E | 49-50 | 6747 HR |
| 2010 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | GREAT BROMLEY ENG | 51 53 45 N | 1 03 25 E | 49-50 | 7477 HR |
| 2011 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | DORKET HEAD ENG | 53 01 02 N | 1 06 48 W | 51-52 | 4404 HR |
| 2012 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | PANNAL ASH ENG | 53 59 18 N | 1 36 59 W | 51-52 | 3708 HR |
| 2013 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | LARGO WARD SCOT | 56 15 27 N | 2 51 28 W | 51-52 | 3974 HR |
| 2014 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | RED MOSS SCOT | 57 15 13 N | 2 07 35 W | 51-52 | 3744 HR |
| 2015 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | PORTREATH ENG | 50 15 48 N | 5 16 33 W | 51 | 9 MO |
| 2016 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | REDRUTH ENG | 50 12 56 N | 5 14 42 W | 51-52 | 867 HR |
| 2017 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | HEDDINGHAM ENG | 55 01 09 N | 1 46 48 W | 51-52 | 3976 HR |
| 2018 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | LARGO WARD SCOT | 56 15 27 N | 2 51 28 W | 51-52 | 3304 HR |
| 2019 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | REDMOSS SCOT | 57 15 13 N | 2 07 35 W | 51-52 | 14 MO |
| 2020 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | PORTREATH ENG | 50 15 48 N | 5 16 33 W | 51 | 9 MO |
| 2021 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | REDRUTH ENG | 50 12 56 N | 5 14 42 W | 51-52 | 822 HR |
| 2022 | WENVOE WALES | 51 27 32 N | 3 16 48 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 54 | 13 OA |
| 2023 | HELDNUM SCOT | 57 23 10 N | 2 23 56 W | SCOUSBURGH* | 59 57 10 N | 1 18 20 W | 56 | 1 MO |
| 2024 | HELDNUM SCOT | 57 23 10 N | 2 23 56 W | NETHERBUTON** | 58 55 24 N | 2 56 10 W | 57 | 1 MO |
| 2025 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 54-56 | 5243 HR |
| 2026 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 54-56 | 7487 HR |
| 2027 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | BEDDINGHAM ENG | 50 50 02 N | 0 04 15 E | 54-56 | 7212 HR |
| 2028 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 55-56 | 3143 HR |
| 2029 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 55-56 | 4652 HR |
| 2030 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | BEDDINGHAM ENG | 50 50 02 N | 0 04 15 E | 55-56 | 2481 HR |
| 2031 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 55-56 | 4146 HR |
| 2032 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 55-56 | 4568 HR |
| 2033 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | BEDDINGHAM ENG | 50 50 02 N | 0 04 15 E | 55-56 | 3765 HR |
| 2034 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | HAPPISBURGH ENG | 52 49 42 N | 1 31 38 E | 54-55 | 5541 HR |
| 2035 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | FLAMBOROUGH HEAD ENG | 54 07 39 N | 0 05 40 W | 54-55 | 5589 HR |
| 2036 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | NEWTON-BY-THE-SEA ENG | 55 31 06 N | 1 37 05 W | 54-55 | 5541 HR |
| 2037 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | BRIDGE OF DON SCOT | 57 10 40 N | 2 05 00 W | 54-55 | 5936 HR |
| 2038 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | LERWICK SHETLAND IS | 60 08 11 N | 1 10 46 W | 54-55 | 5679 HR |
| 2039 | LILLE FRANCE | 50 38 30 N | 3 03 30 E | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 52-53 | 1129 HR |
| 2040 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | OTTRINGHAM ENG | 53 41 50 N | 0 03 52 W | 57-58 | 4253 HR |
| 2041 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | DORKET HEAD ENG | 53 01 02 N | 1 06 48 W | 57-58 | 3798 HR |
| 2042 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 57-58 | 4210 HR |
| 2043 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 57-58 | 3197 HR |
| 2044 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | BEDDINGHAM ENG | 50 50 02 N | 0 04 15 E | 57-58 | 4157 HR |
| 2045 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | OTTRINGHAM ENG | 53 41 50 N | 0 03 52 W | 57-58 | 6169 HR |
| 2046 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | DORKET HEAD ENG | 53 01 02 N | 1 06 48 W | 57-58 | 5884 HR |
| 2047 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 57-58 | 5367 HR |
| 2048 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 57 | 3545 HR |
| 2049 | PONTOP PIKE ENG | 54 52 08 N | 1 46 11 W | BEDDINGHAM ENG | 50 50 02 N | 0 04 15 E | 57-58 | 6313 HR |
| 2050 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | HAPPISBURGH ENG | 52 49 42 N | 1 31 38 E | 57-58 | 6380 HR |
| 2051 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | FLAMBOROUGH HEAD ENG | 54 07 39 N | 0 05 40 W | 57-58 | 6619 HR |
| 2052 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | NEWTON-BY-THE-SEA ENG | 55 31 06 N | 1 37 05 W | 57-58 | 6010 HR |
| 2053 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | BRIDGE OF DON SCOT | 57 10 40 N | 2 05 00 W | 57-58 | 6752 HR |
| 2054 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | LERWICK SHETLAND IS | 60 08 11 N | 1 10 46 W | 57-58 | 6845 HR |
| 2057 | DAVENTRY ENG | 52 14 32 N | 1 09 24 W | TEDDINGTON ENG | 51 25 24 N | 0 19 54 W | 48-49 | 6000 HR |
| 2058 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 54-55 | 14 MO |
| 2059 | ALEXANDRA PALACE ENG | 51 35 30 N | 0 07 40 W | MALVERN ENG | 52 05 57 N | 2 18 40 W | 46-48 | 25 OA |
| 2060 | ALEXANDRA PALACE ENG | 51 35 30 N | 0 07 40 W | CASTLETON WALES | 51 33 12 N | 3 04 14 W | 47-50 | 1800 HR |
| 2061 | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | TEDDINGTON ENG | 51 25 24 N | 0 19 54 W | 47-48 | 17 MO |
| 2063 | START POINT ENG | 50 13 36 N | 3 39 38 W | WEMBLEY ENG | 51 33 48 N | 0 17 45 W | 58-59 | 1436 HR |
| 2064 | START POINT ENG | 50 13 36 N | 3 39 38 W | WEMBLEY ENG | 51 33 48 N | 0 17 45 W | 56-59 | 5114 HR |
| 2067 | START POINT ENG | 50 13 36 N | 3 39 38 W | WITNESHAM ENG | 52 07 36 N | 1 11 04 E | 57-58 | 950 HR |
| 2068 | START POINT ENG | 50 13 36 N | 3 39 38 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 57-58 | 7 MO |
| 2069 | START POINT ENG | 50 13 36 N | 3 39 38 W | BLANDFORD ENG | 50 53 09 N | 2 09 12 W | 58 | 3 MO |
| 2071 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 52-53 | 4140 HR |
| 2072 | WENVOE WALES | 51 27 32 N | 3 16 48 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 52-53 | 824 HR |
| 2073 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | REDRUTH ENG | 50 12 56 N | 5 14 42 W | 51 | 1673 HR |
| 2075 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | DOUGLAS ISLE OF MAN | 54 12 50 N | 4 28 00 W | 56 | 5 MO |
| 2079 | DOLLIS HILL ENG | 51 33 40 N | 0 14 20 W | GREEN HAILEY ENG | 51 43 20 N | 0 48 00 W | 51 | 1 MO |
| 2083 | HONTH HEAD IRE | 53 22 21 N | 6 04 04 W | PORTSDOWN ENG | 50 51 30 N | 1 07 16 W | 58-59 | 277 HR |
| 2084 | NORWAY | 60 N | 6 E | SHETLAND IS | 60 N | 2 W | 58 | 986 HR |
| 2085 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | HAPPISBURGH ENG | 52 49 42 N | 1 31 38 E | 61-62 | 1119 HR |
| 2086 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | FLAMBOROUGH HEAD ENG | 54 07 39 N | 0 05 40 W | 61-62 | 1123 HR |
| 2087 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | NEWTON-BY-THE-SEA ENG | 55 31 06 N | 1 37 05 W | 61-62 | 1059 HR |
| 2088 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | BRIDGE OF DON SCOT | 57 10 40 N | 2 05 00 W | 61-62 | 1124 HR |
| 2089 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | LERWICK SHETLAND IS | 60 08 11 N | 1 10 46 W | 61-62 | 1143 HR |
| 2090 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2588 HR |
| 2091 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2598 HR |
| 2092 | PETERBOROUGH ENG | 52 30 26 N | 0 20 30 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2524 HR |
| 2093 | PETERBOROUGH ENG | 52 30 26 N | 0 20 30 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 1859 HR |
| 2094 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2617 HR |
| 2095 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2578 HR |
| 2096 | WENVOE WALES | 51 27 32 N | 3 16 48 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2594 HR |

*SHETLAND IS **ORKNEY IS

TABLE 1. CONTINUED

| PATH | | TRANSMITTER | | | RECEIVER | | | YEAR LENGTH OF | |
|------|----------------------|-------------|-----------|-----------------------|------------|-----------|-----------|----------------|--|
| NO. | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | RECORDING | | |
| 2097 | MENVOE WALES | 51 27 32 N | 3 16 48 W | CAVERSHAM ENG | 51 28 52 N | 0 57 23 W | 61 | 2563 HR | |
| 2098 | BACKWELL ENG | 51 24 18 N | 2 44 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 56-58 | 22000 HR | |
| 2099 | DUSSELDORF W GER | 51 20 N | 7 02 E | ALDEBURGH ENG | 52 08 50 N | 1 36 15 E | 61-62 | 1500 HR | |
| 2100 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | DISHFORTH ENG | 54 08 43 N | 1 25 25 W | 59-60 | 5695 HR | |
| 2101 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | MOORSIDE EDGE ENG | 53 38 01 N | 1 53 35 W | 59-60 | 8815 HR | |
| 2102 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | DORKET HEAD ENG | 53 01 02 N | 1 06 48 W | 59-60 | 8390 HR | |
| 2103 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 59-60 | 8497 HR | |
| 2104 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 59-60 | 8728 HR | |
| 2105 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | BEDDINGHAM ENG | 50 50 02 N | 0 04 15 E | 59-60 | 8800 HR | |
| 2106 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | ABERDEEN SCOT | 57 12 50 N | 2 03 50 W | 60 | 3200 HR | |
| 2107 | MENDLESHAM ENG | 52 14 03 N | 1 06 32 E | PETERBOROUGH ENG | 52 34 17 N | 0 13 21 W | 60-61 | 1 YR | |
| 2108 | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 59-60 | 17 MO | |
| 2109 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | HAPPISBURGH ENG | 52 49 42 N | 1 31 38 E | 59-61 | 9340 HR | |
| 2110 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | FLAMBOROUGH HEAD ENG | 54 07 39 N | 0 05 40 W | 59-61 | 9603 HR | |
| 2111 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | NEWTON-BY-THE-SEA ENG | 55 31 06 N | 1 37 05 W | 59-61 | 8862 HR | |
| 2112 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | BRIDGE OF DON SCOT | 57 10 40 N | 2 05 00 W | 59-61 | 9783 HR | |
| 2113 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | LERWICK SHETLAND IS | 60 08 11 N | 1 10 46 W | 59-61 | 9696 HR | |
| 2114 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 58-59 | 6 MO | |
| 2115 | SCHEVENINGEN NETH | 52 06 N | 4 16 E | PONTOPI PIKE ENG | 54 52 08 N | 1 46 11 W | 60-61 | 13 MO | |
| 2116 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 53 | 640 HR | |
| 2117 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 54-56 | 6373 HR | |
| 2118 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 54-55 | 3274 HR | |
| 2119 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 55-56 | 3117 HR | |
| 2120 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 55-56 | 4014 HR | |
| 2121 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 53 | 511 HR | |
| 2122 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 55-56 | 2868 HR | |
| 2123 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | DATCHET ENG | 51 28 48 N | 0 34 18 W | 52-53 | 18 MO | |
| 2124 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | GREEN HAILEY ENG | 51 43 10 N | 0 47 06 W | 55 | 1534 HR | |
| 2125 | EMLEY MOOR ENG | 53 36 45 N | 1 39 45 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 60 | 2100 HR | |
| 2126 | ST HILARY DOWN WALES | 51 27 25 N | 3 24 15 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 60 | 2100 HR | |
| 2127 | ST HILARY DOWN WALES | 51 27 25 N | 3 24 15 W | CORK IRE | 51 55 40 N | 8 29 50 W | 59-60 | 4200 HR | |
| 2128 | HOUGHAM ENG | 51 06 40 N | 1 14 58 E | BANBURY ENG | 52 02 05 N | 1 18 50 W | 60 | 2100 HR | |
| 2129 | HOUGHAM ENG | 51 06 40 N | 1 14 58 E | JAYWICK ENG | 51 46 50 N | 1 07 20 E | 60 | 2100 HR | |
| 2130 | ROWRIDGE ENG | 50 40 34 N | 1 22 02 W | BANBURY ENG | | | 58-59 | 11 MO | |
| 2131 | ROWRIDGE ENG | 50 40 34 N | 1 22 02 W | STOKE FLEMING ENG | 50 19 20 N | 3 35 53 W | 58-59 | 4000 HR | |
| 2132 | LILLE FRANCE | 50 38 30 N | 3 03 30 E | STOKE FLEMING ENG | 50 19 20 N | 3 35 53 W | 58-59 | 2200 HR | |
| 2133 | LILLE FRANCE | 50 38 30 N | 3 03 30 E | ALDEBURGH ENG | 52 08 50 N | 1 36 15 E | 58 | 8 MO | |
| 2134 | THROCKING ENG | 51 57 03 N | 0 03 34 W | STANMORE ENG | 51 37 51 N | 0 19 15 W | 61-62 | 9926 HR | |
| 2135 | FISHGUARD WALES | 52 N | 5 W | PORTPATRICK SCOT | 54 50 38 N | 5 07 23 W | 44-45 | 11 MO | |
| 2136 | DOUGLAS ISLE OF MAN | 54 08 25 N | 4 29 32 W | HOLYHEAD WALES | 53 18 33 N | 4 41 13 W | 57-58 | 3000 HR | |
| 2137 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | ARNCLIFFE WOOD ENG | 54 23 20 N | 1 17 30 W | 59-60 | 2100 HR | |
| 2138 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 52 | 4020 HR | |
| 2139 | CUXHAVEN W GER | 53 50 N | 8 39 E | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 61 | 23 HR | |
| 2140 | BLAEN PLWYF WALES | 52 21 36 N | 4 06 00 W | HOLYHEAD WALES | 53 18 33 N | 4 41 13 W | 57-58 | 3000 HR | |
| 2141 | BLAEN PLWYF WALES | 52 21 36 N | 4 06 00 W | DUBLIN IRE | 53 17 34 N | 6 11 49 W | 59-60 | 4200 HR | |
| 2142 | NETHERBUTTON* | 58 55 24 N | 2 56 10 W | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 60-61 | 3300 HR | |
| 2143 | LES PLATONS+ | 49 14 49 N | 2 06 04 W | STOKE FLEMING ENG | 50 19 20 N | 3 35 53 W | 59-60 | 2500 HR | |
| 2144 | LES PLATONS+ | 49 14 49 N | 2 06 04 W | LESWIDEN ENG | 50 07 00 N | 5 38 44 W | 59-60 | 5600 HR | |
| 2145 | NO HESSARY TOR ENG | 50 32 59 N | 4 00 26 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 60-61 | 3500 HR | |
| 2146 | NO HESSARY TOR ENG | 50 32 59 N | 4 00 26 W | CORK IRE | 51 55 40 N | 8 29 50 W | 59-60 | 4200 HR | |
| 2147 | CAEN FRANCE | 48 58 N | 0 37 W | TOLS福德 HILL ENG | 51 06 05 N | 1 04 40 E | 59-60 | 3500 HR | |
| 2148 | BERGEN NORWAY | 60 24 42 N | 5 21 50 E | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 56-58 | 16000 HR | |
| 2150 | DIVIS IRE | 54 37 00 N | 6 00 30 W | LESWIDEN ENG | 50 07 00 N | 5 38 44 W | 59-60 | 5400 HR | |
| 2151 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | DOUGLAS ISLE OF MAN | 54 12 50 N | 4 28 00 W | 56-57 | 4200 HR | |
| 2152 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 56-57 | 2100 HR | |
| 2153 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | BALLYWALTER IRE | 54 32 25 N | 5 29 00 W | 58-59 | 9 MO | |
| 2154 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | DUNDRUM IRE | 54 15 31 N | 5 50 26 W | 58-59 | 4200 HR | |
| 2155 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | NEWTOWNARDS IRE | 54 35 19 N | 5 41 W | 58 | 10 MO | |
| 2156 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | BALDOCK ENG | 52 00 12 N | 0 07 42 W | 57-58 | 4200 HR | |
| 2157 | WINTER HILL ENG | 53 37 44 N | 2 30 55 W | DUBLIN IRE | 53 17 34 N | 6 11 49 W | 59-60 | 4200 HR | |
| 2158 | CHILLERTON DOWN ENG | 50 38 55 N | 1 19 40 W | STOKE FLEMING ENG | 50 19 20 N | 3 35 53 W | 59-60 | 6000 HR | |
| 2159 | CHILLERTON DOWN ENG | 50 38 55 N | 1 19 40 W | LESWIDEN ENG | 50 07 00 N | 5 38 44 W | 60 | 2800 HR | |
| 2160 | PARIS FRANCE | 48 58 45 N | 2 11 30 E | TOLS福德 HILL ENG | 51 06 05 N | 1 04 40 E | 59-60 | 3000 HR | |
| 2161 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | OXFORD ENG | 51 45 20 N | 1 15 25 W | 57-58 | 800 HR | |
| 2162 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 58 | 270 HR | |
| 2163 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | STOKE FLEMING ENG | 50 19 20 N | 3 35 53 W | 58 | 7 MO | |
| 2164 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | DARLINGTON ENG | 54 28 52 N | 1 37 11 W | 58 | 6 MO | |
| 2165 | BALLYGOMARTIN IRE | 54 30 N | 6 W | STRANRAER (SITE A)++ | 54 50 N | 5 W | | 14 OA | |
| 2166 | BALLYGOMARTIN IRE | 54 30 N | 6 W | STRANRAER (SITE B)++ | 54 50 45 N | 4 55 W | 51 | 15 DA | |
| 2167 | WIDEFORD HILL* | 58 59 20 N | 3 04 20 W | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 59 | 3000 HR | |
| 2168 | SANDAY ORKNEY IS | 59 13 16 N | 2 39 06 W | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 57-58 | 9400 HR | |
| 2169 | SANDAY ORKNEY IS | 59 13 16 N | 2 39 06 W | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 57-58 | 8400 HR | |
| 2170 | SANDAY ORKNEY IS | 59 13 16 N | 2 39 06 W | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 57-58 | 7700 HR | |
| 2171 | SANDAY ORKNEY IS | 59 13 16 N | 2 39 06 W | SCOUSBURGH** | 59 57 10 N | 1 18 20 W | 57-60 | 10500 HR | |
| 2172 | CROYDON ENG | 51 24 35 N | 0 05 15 W | BANBURY ENG | 52 02 05 N | 1 18 50 W | 56-57 | 1800 HR | |
| 2173 | SUTTON COLDFIELD ENG | 52 35 59 N | 1 49 57 W | CASTLETON WALES | 51 33 12 N | 3 04 14 W | 49-51 | 6800 HR | |
| 2174 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | CASTLETON WALES | 51 33 12 N | 3 04 14 W | 50 | 4 MO | |
| 2175 | LOPKH NETH | 52 01 N | 5 03 E | WICKHAMBRIDGE ENG | 52 11 25 N | 0 33 01 E | 61-62 | 6 MO | |
| 2177 | FISHGUARD WALES | 52 00 N | 5 00 W | PORTPATRICK SCOT | 54 50 N | 5 10 W | 44-45 | 11 MO | |
| 2178 | LILLE FRANCE | 50 38 30 N | 3 03 30 E | BANBURY ENG | 52 02 05 N | 1 18 50 W | 55-58 | 5000 HR | |

*ORKNEY IS **SHETLAND IS +CHANNEL IS ++SCOT

TABLE 1. CONTINUED

| PATH NO. | TRANSMITTER | | | RECEIVER | | | YEAR | LENGTH OF RECORDING |
|----------|----------------------|------------|-------------|---------------------|------------|-------------|-------|---------------------|
| | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | | |
| 2179 | WRDTHAM ENG | 51 19 11 N | 0 17 20 E | DOUGLAS ISLE OF MAN | 54 12 50 N | 4 28 00 W | 51-53 | 5500 HR |
| 2180 | ALEXANDRA PALACE ENG | 51 35 30 N | 0 07 40 W | DOUGLAS ISLE OF MAN | 54 12 50 N | 4 28 00 W | 51 | 3600 HR |
| 2181 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | DOUGLAS ISLE OF MAN | 54 10 35 N | 4 25 15 W | 52-53 | 2200 HR |
| 2182 | COVERACK ENG | 50 01 10 N | 5 05 54 W | PORTSMOUTH ENG | 50 48 N | 1 05 W | 57 | 29 DA |
| 2183 | GREAT BROMLEY ENG | 51 53 45 N | 1 03 25 E | SUTTON BANK ENG | 54 13 30 N | 1 12 43 W | 56 | 1 MO |
| 2184 | GREAT BROMLEY ENG | 51 53 45 N | 1 03 25 E | GRANTHAM ENG | 52 54 00 N | 0 35 07 W | 56 | 2 MO |
| 2185 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | CASTLETON WALES | 51 33 12 N | 3 04 14 W | 58 | 5 MO |
| 2186 | LOPIK NETH | 52 01 N | 5 03 E | ALDEBURGH ENG | 52 08 50 N | 1 36 15 E | 60-62 | 8000 HR |
| 2187 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | CASTLETON WALES | 51 33 12 N | 3 04 14 W | 50 | 1200 HR |
| 2188 | GREAT BROMLEY ENG | 51 53 45 N | 1 03 25 E | GATTERICK ENG | 54 20 39 N | 1 41 18 W | 57 | 6 MO |
| 2189 | DORTMUND W GER | 51 30 55 N | 7 27 24 E | WICKHAMBROOK ENG | 52 11 25 N | 0 33 01 E | 61 | 1900 HR |
| 2190 | DORTMUND W GER | 51 30 55 N | 7 27 24 E | SLOUGH ENG | 51 29 40 N | 0 33 50 W | 61 | 18 HR |
| 2191 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | CASTLETON WALES | 51 33 12 N | 3 04 14 W | 58 | 1000 HR |
| 2192 | HUISDUINEN NETH | 52 57 N | 4 44 E | WEST BECKHAM ENG | 52 54 43 N | 1 10 50 E | 58-60 | 3500 HR |
| 2193 | BELOWDA ENG | 50 25 35 N | 4 51 25 W | WEST BECKHAM ENG | 52 54 43 N | 1 10 50 E | 59-60 | 14 MO |
| 2194 | BELOWDA ENG | 50 25 35 N | 4 51 25 W | WIDLEY ENG | 51 49 25 N | 1 36 20 W | 58-60 | 2 YR |
| 2195 | DUSSELDORF W GER | 51 20 N | 7 02 E | WICKHAMBROOK ENG | 52 11 25 N | 0 33 01 E | 61-62 | 1 YR |
| 2196 | DUSSELDORF W GER | 51 20 N | 7 02 E | BANBURY ENG | 52 02 05 N | 1 18 50 W | 62 | 6 MO |
| 2197 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 62-63 | 1329 HR |
| 2198 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 63 | 958 HR |
| 2199 | DORTMUND W GER | 51 30 55 N | 7 27 24 E | ALDEBURGH ENG | 52 08 50 N | 1 36 15 E | 60-61 | 5000 HR |
| 2200 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1454 HR |
| 2201 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1418 HR |
| 2202 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1441 HR |
| 2203 | RDRIDGE ENG | 50 40 34 N | 1 22 02 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1473 HR |
| 2204 | WENVOE WALES | 51 27 32 N | 3 16 48 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1388 HR |
| 2205 | WENVOE WALES | 51 27 32 N | 3 16 48 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1403 HR |
| 2206 | NO HESSARY TOR ENG | 50 32 59 N | 4 00 26 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1436 HR |
| 2207 | NO HESSARY TOR ENG | 50 32 59 N | 4 00 26 W | MURSLEY ENG | 51 57 12 N | 0 48 05 W | 61 | 1444 HR |
| 2208 | STOCKLAND HILL ENG | 50 48 23 N | 3 06 13 W | ALDERNEY CHANNEL IS | 49 42 56 N | 2 12 30 W | 61-62 | 1790 HR |
| 2209 | CHILLERTON DOWN ENG | 50 38 55 N | 1 19 40 W | ALDERNEY CHANNEL IS | 49 42 56 N | 2 12 30 W | 60-61 | 4550 HR |
| 2212 | MALVERN ENG | 52 05 57 N | 2 18 40 W | HEMBLEY ENG | 51 33 48 N | 0 17 45 W | 61-62 | 3003 HR |
| 2213 | MALVERN ENG | 52 05 57 N | 2 18 40 W | HEMBLEY ENG | 51 33 48 N | 0 17 45 W | 61-62 | 2763 HR |
| 2214 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 62-63 | 1329 HR |
| 2215 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | GREAT BADDOW ENG | 51 42 21 N | 0 30 16 E | 62-63 | 1329 HR |
| 2216 | DORTMUND W GER | 51 30 55 N | 7 27 24 E | ALDEBURGH ENG | 52 08 50 N | 1 36 15 E | 62 | 2 MO |
| 2217 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | KINGSWOOD ENG | 51 17 20 N | 0 12 50 W | 61-62 | 1633 HR |
| 2218 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | REIGATE ENG | 51 12 47 N | 0 11 11 W | 61-62 | 939 HR |
| 2219 | HOLME MOSS ENG | 53 31 58 N | 1 51 22 W | HOOKWOOD ENG | 51 09 05 N | 0 11 15 W | 62 | 710 HR |
| 2220 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | KINGSWOOD ENG | 50 17 20 N | 0 12 50 W | 61-62 | 1737 HR |
| 2221 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | REIGATE ENG | 51 12 47 N | 0 11 11 W | 61-62 | 1029 HR |
| 2222 | SUTTON COLOFIELD ENG | 52 35 59 N | 1 49 57 W | HOOKWOOD ENG | 51 09 05 N | 0 11 15 W | 62 | 684 HR |
| 2223 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | GREAT BADDOW ENG | 51 42 21 N | 0 30 16 E | 63 | 958 HR |
| 2224 | CRYSTAL PALACE ENG | 51 25 20 N | 0 04 17 W | GREAT BADDOW ENG | 51 42 21 N | 0 30 16 E | 62-63 | 1329 HR |
| 2228 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT HIEI JAPAN | 35 04 33 N | 135 50 24 E | 62 | 20 DA |
| 2229 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT HIEI JAPAN | 35 04 33 N | 135 50 24 E | 62 | 20 DA |
| 2230 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT KAZASI JAPAN | 33 55 41 N | 130 57 30 E | 62-63 | 40 DA |
| 2231 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT KAZASI JAPAN | 33 55 41 N | 130 57 30 E | 62-63 | 40 DA |
| 2232 | NAZE JAPAN | | | OURA JAPAN | | | 62-63 | 1 YR |
| 2233 | WAKKANAI JAPAN | 45 25 05 N | 141 39 23 E | CHITOSE JAPAN | 42 50 05 N | 141 42 08 E | 63 | 2100 HR |
| 2234 | CHITOSE JAPAN | 42 50 05 N | 141 42 08 E | MISAWA JAPAN | 40 41 26 N | 141 21 57 E | 63 | 2100 HR |
| 2235 | MISAWA JAPAN | 40 41 26 N | 141 21 57 E | SENDAI JAPAN | 38 15 05 N | 140 50 52 E | 63 | 2000 HR |
| 2236 | SENDAI JAPAN | 38 15 05 N | 140 50 52 E | FUCHU JAPAN | 35 40 41 N | 139 29 58 E | 63 | 2000 HR |
| 2237 | FUCHU JAPAN | 35 40 41 N | 139 29 58 E | ZAMA JAPAN | 35 29 52 N | 139 24 04 E | 63 | 1200 HR |
| 2238 | DRAKE JAPAN | 35 47 31 N | 139 35 50 E | ZAMA JAPAN | 35 29 52 N | 139 24 04 E | 62 | 880 HR |
| 2239 | ZAMA JAPAN | 35 29 52 N | 139 24 04 E | HAKONE JAPAN | 35 11 08 N | 139 03 27 E | 63 | 2100 HR |
| 2240 | HAKONE JAPAN | 35 11 08 N | 139 03 27 E | ROKKO JAPAN | 34 46 29 N | 135 16 01 E | 63 | 1800 HR |
| 2241 | ROKKO JAPAN | 34 46 29 N | 135 16 01 E | SOFU JAPAN | 34 04 06 N | 132 09 21 E | 63 | 1800 HR |
| 2242 | SOFU JAPAN | 34 04 06 N | 132 09 21 E | IWAKUNI JAPAN | 34 08 32 N | 132 13 29 E | 63 | 288 HR |
| 2243 | SOFU JAPAN | 34 04 06 N | 132 09 21 E | SEBURIYAMA JAPAN | 33 25 17 N | 130 22 46 E | 63 | 800 HR |
| 2244 | SEBURIYAMA JAPAN | 33 25 17 N | 130 22 46 E | ITAZUKE JAPAN | 33 34 57 N | 130 26 35 E | 62 | 700 HR |
| 2245 | ITAZUKE JAPAN | 33 34 57 N | 130 26 35 E | CHANGSAN JAPAN | 35 11 27 N | 129 08 48 E | 63 | 1400 HR |
| 2246 | SEBURIYAMA JAPAN | 33 25 17 N | 130 22 46 E | CHIRAN JAPAN | 31 20 31 N | 130 29 25 E | 62-63 | 1700 HR |
| 2247 | CHIRAN JAPAN | 31 20 31 N | 130 29 25 E | YAETAKE JAPAN | 26 37 48 N | 127 55 22 E | 62-63 | 2500 HR |
| 2250 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | ASAO JAPAN | 37 53 09 N | 138 24 41 E | 57 | 25 DA |
| 2251 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | ASAO JAPAN | 37 53 09 N | 138 24 41 E | 57 | 25 DA |
| 2252 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT KINPOKU JAPAN | 38 06 03 N | 138 21 11 E | 57 | 5 DA |
| 2253 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT KINPOKU JAPAN | 38 06 03 N | 138 21 11 E | 57 | 5 DA |
| 2254 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT MYOKEN JAPAN | 38 04 56 N | 138 20 00 E | 57 | 5 DA |
| 2255 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT MYOKEN JAPAN | 38 04 56 N | 138 20 00 E | 57 | 5 DA |
| 2256 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | NAKAOKI JAPAN | 38 01 16 N | 138 22 04 E | 57 | 4 DA |
| 2257 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | KAWAMARADA JAPAN | 38 19 30 N | 138 20 00 E | 57 | 6 DA |
| 2258 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | SHINPO JAPAN | 38 01 45 N | 138 23 00 E | 57 | 4 DA |
| 2259 | TOKYO TOWER JAPAN | 35 39 18 N | 139 44 56 E | KOGA JAPAN | 36 11 14 N | 139 42 20 E | 61-62 | 655 HR |
| 2260 | TOKYO TOWER JAPAN | 35 39 18 N | 139 44 56 E | KOGA JAPAN | 36 11 14 N | 139 42 20 E | 61-62 | 889 HR |
| 2261 | TOKYO TOWER JAPAN | 35 39 18 N | 139 44 56 E | UTSUNOMIYA JAPAN | 36 33 24 N | 139 49 47 E | 61-62 | 4889 HR |
| 2262 | TOKYO TOWER JAPAN | 35 39 18 N | 139 44 56 E | UTSUNOMIYA JAPAN | 36 33 24 N | 139 49 47 E | 61-62 | 3675 HR |
| 2263 | TOKYO TOWER JAPAN | 35 39 18 N | 139 44 56 E | KUROISO JAPAN | 36 57 55 N | 140 03 05 E | 61-62 | 1564 HR |
| 2264 | TOKYO TOWER JAPAN | 35 39 18 N | 139 44 56 E | KUROISO JAPAN | 36 57 55 N | 140 03 05 E | 61-62 | 1640 HR |
| 2265 | GINZA JAPAN | 35 40 15 N | 139 44 30 E | HACHIJO JAPAN | 33 06 55 N | 139 47 50 E | 55 | 52 HR |

TABLE 1. CONTINUED

| PATH | TRANSMITTER | | | | RECEIVER | | | | YEAR | LENGTH | DF |
|------|-------------------------|------------|-------------|--------------------|------------|-------------|-----------|-------|------|--------|----|
| NO. | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | RECORDING | | | | |
| 2266 | TOKYO JAPAN | 35 40 20 N | 139 44 25 E | HACHIJO JAPAN | 33 06 55 N | 139 47 50 E | 55-56 | 2163 | HR | | |
| 2267 | TOKYO JAPAN | 35 40 20 N | 139 44 25 E | HACHIJO JAPAN | 33 06 55 N | 139 47 50 E | 55-56 | 1129 | HR | | |
| 2268 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 60 | 339 | HR | | |
| 2269 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 60 | 364 | HR | | |
| 2270 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 60 | 334 | HR | | |
| 2271 | KOKUBUNJI JAPAN | 35 42 25 N | 139 29 31 E | SENDAI JAPAN | 38 16 51 N | 140 49 35 E | 60-62 | 11520 | HR | | |
| 2272 | KOKUBUNJI JAPAN | 35 42 25 N | 139 29 31 E | SENDAI JAPAN | 38 16 51 N | 140 49 35 E | 60-62 | 10746 | HR | | |
| 2273 | KOKUBUNJI JAPAN | 35 42 25 N | 139 29 31 E | SENDAI JAPAN | 38 16 51 N | 140 49 35 E | 60-62 | 11280 | HR | | |
| 2277 | INAMI JAPAN | 33 48 11 N | 135 13 32 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 57-58 | 1778 | HR | | |
| 2278 | INAMI JAPAN | 33 48 11 N | 135 13 32 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 57-58 | 1725 | HR | | |
| 2279 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 57-58 | 1787 | HR | | |
| 2280 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 57-58 | 1744 | HR | | |
| 2281 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | MURATOMISAKI JAPAN | 33 14 38 N | 134 10 39 E | 57-58 | 1668 | HR | | |
| 2282 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | WAKAYAMA JAPAN | 34 12 55 N | 135 10 39 E | 57-58 | 1 | YR | | |
| 2283 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | WAKAYAMA JAPAN | 34 12 55 N | 135 10 39 E | 57-58 | 7 | MO | | |
| 2284 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | OURA JAPAN | | | 56 | 19 | DA | | |
| 2285 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | OURA JAPAN | | | 57 | 21 | DA | | |
| 2286 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | OURA JAPAN | | | 57 | 21 | DA | | |
| 2287 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | OURA JAPAN | | | 56 | 9 | DA | | |
| 2288 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | OURA JAPAN | | | 57 | 21 | DA | | |
| 2289 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | IBUSUKI JAPAN | 31 14 24 N | 130 38 51 E | 57 | 21 | DA | | |
| 2290 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | IBUSUKI JAPAN | 31 14 24 N | 130 38 51 E | 56 | 23 | DA | | |
| 2291 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | IBUSUKI JAPAN | 31 14 24 N | 130 38 51 E | 57 | 35 | DA | | |
| 2292 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | IBUSUKI JAPAN | 31 14 24 N | 130 38 51 E | 57 | 7 | DA | | |
| 2293 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | IBUSUKI JAPAN | 31 14 24 N | 130 38 51 E | 56 | 73 | HR | | |
| 2294 | ASATO JAPAN | 28 20 19 N | 129 31 39 E | IBUSUKI JAPAN | 31 14 24 N | 130 38 51 E | 57 | 96 | HR | | |
| 2295 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | INAMI JAPAN | 33 48 11 N | 135 13 32 E | 57-58 | 1573 | HR | | |
| 2296 | MIYAZAKI JAPAN | 31 48 00 N | 131 27 56 E | INAMI JAPAN | 33 48 11 N | 135 13 32 E | 57-58 | 1674 | HR | | |
| 2297 | KAZASHIYAMA JAPAN | 33 55 41 N | 130 57 30 E | OSAKA JAPAN | 34 40 56 N | 135 30 39 E | 57-58 | 6511 | HR | | |
| 2300 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | FURUKAWA JAPAN | 38 34 22 N | 140 57 51 E | 58-59 | 8 | MO | | |
| 2301 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | FURUKAWA JAPAN | 38 34 22 N | 140 57 51 E | 59 | 2 | MO | | |
| 2302 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | NIHONMATSU JAPAN | 37 35 35 N | 140 25 02 E | 58-59 | 8 | MO | | |
| 2303 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | NIHONMATSU JAPAN | 37 35 35 N | 140 25 02 E | 59 | 2 | MO | | |
| 2304 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | FURUKAWA JAPAN | 38 34 22 N | 140 57 51 E | 58-59 | 10 | MO | | |
| 2305 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | NIHONMATSU JAPAN | 37 35 35 N | 140 25 02 E | 58-59 | 10 | MO | | |
| 2306 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | FURUKAWA JAPAN | 38 34 22 N | 140 57 51 E | 58-59 | 10 | MO | | |
| 2307 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | NIHONMATSU JAPAN | 37 35 35 N | 140 25 02 E | 59 | 7 | MO | | |
| 2308 | INUBO JAPAN | 35 42 08 N | 140 51 28 E | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | 56 | 80 | DA | | |
| 2309 | INUBO JAPAN | 35 42 08 N | 140 51 28 E | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | 56 | 5 | MO | | |
| 2310 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | MT IKOMA JAPAN | 34 40 32 N | 135 40 58 E | 56-57 | 6 | MO | | |
| 2311 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 58 | 66 | DA | | |
| 2314 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 57 | 15 | DA | | |
| 2315 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 57 | 30 | DA | | |
| 2316 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 57 | 15 | DA | | |
| 2317 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 57 | 15 | DA | | |
| 2318 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 57 | 8 | DA | | |
| 2320 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 58 | 42 | DA | | |
| 2338 | YUI JAPAN | | | TANO JAPAN | | | 60 | 1 | MO | | |
| 2339 | YUI JAPAN | | | TANO JAPAN | | | 60 | 1 | MO | | |
| 2340 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 57 | 15 | DA | | |
| 2341 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 58 | 24 | DA | | |
| 2349 | KOKUBUNJI JAPAN | 35 42 24 N | 139 29 18 E | HIRAIISO JAPAN | 36 21 46 N | 140 37 29 E | 58 | 67 | DA | | |
| 2350 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-60 | 6772 | HR | | |
| 2351 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-60 | 7042 | HR | | |
| 2352 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 58-60 | 8623 | HR | | |
| 2353 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 58-59 | 3880 | HR | | |
| 2354 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59 | 4897 | HR | | |
| 2355 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 58-59 | 6932 | HR | | |
| 2356 | BIELSTEIN W GER | 51 54 29 N | 8 49 18 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 57-58 | 7733 | HR | | |
| 2357 | CROYDON ENG | 51 24 35 N | 0 05 15 W | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 57-58 | 2581 | HR | | |
| 2358 | FELDBERG W GER | 50 13 59 N | 8 27 33 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 58-60 | 14360 | HR | | |
| 2360 | HOCHBLAUEN W GER | 47 46 19 N | 7 42 06 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-60 | 6247 | HR | | |
| 2361 | HOCHBLAUEN W GER | 47 46 19 N | 7 42 06 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-60 | 4137 | HR | | |
| 2362 | HOCHBLAUEN W GER | 47 46 19 N | 7 42 06 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 60 | 504 | HR | | |
| 2363 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 57-58 | 2100 | HR | | |
| 2364 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-60 | 6087 | HR | | |
| 2365 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-61 | 9986 | HR | | |
| 2366 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 59-61 | 13978 | HR | | |
| 2367 | BERLIN-NIKOLASSE* W GER | 52 26 51 N | 13 10 11 E | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | 58 | 720 | HR | | |
| 2368 | BERLIN-NIKOLASSE* W GER | 52 26 51 N | 13 10 11 E | LOHBUGGE W GER | 53 30 04 N | 10 11 29 E | 58 | 956 | HR | | |
| 2369 | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | SAHLENBURG W GER | 53 52 N | 8 37 E | 57-58 | 12712 | HR | | |
| 2370 | MELLUM PLATE W GER | 53 46 15 N | 8 06 E | BREMERHAVEN W GER | 53 34 20 N | 8 33 E | 56-58 | 11540 | HR | | |
| 2371 | NORWICH ENG | 52 31 03 N | 1 08 E | KREFFELD W GER | 51 25 20 N | 6 28 39 E | 59-61 | 14377 | HR | | |
| 2372 | WEDDEHARDEN W GER | 53 36 06 N | 8 32 06 E | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | 57 | 976 | HR | | |
| 2373 | WEDDEHARDEN W GER | 53 36 06 N | 8 32 06 E | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | 57-58 | 3447 | HR | | |
| 2374 | BIELSTEIN W GER | 51 54 28 N | 8 49 15 E | VERDEN W GER | 53 00 06 N | 9 16 22 E | 59-60 | 9 | MO | | |
| 2375 | BIELSTEIN W GER | 51 54 28 N | 8 49 15 E | HAMBURG W GER | 53 36 40 N | 9 59 13 E | 58-59 | 16 | MO | | |
| 2376 | BIELSTEIN W GER | 51 54 28 N | 8 49 15 E | KIEL W GER | 54 20 04 N | 10 04 10 E | 58-60 | 18 | MD | | |
| 2377 | BIELSTEIN W GER | 51 54 28 N | 8 49 15 E | FLENSBURG W GER | 54 47 28 N | 9 27 11 E | 58-60 | 15 | MO | | |
| 2378 | BADEN-BADEN W GER | 48 45 51 N | 8 16 52 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 58 | 1317 | HR | | |

*W GER

TABLE 1. CONTINUED

| PATH NO. | TRANSMITTER | | | RECEIVER | | | YEAR LENGTH OF RECORDING | |
|----------|-----------------------|------------|-------------|------------------------|------------|-------------|--------------------------|----------|
| | LOCATION | LATITUDE | LONGITUDE | LOCATION | LATITUDE | LONGITUDE | | |
| 2380 | PIANO DEI CORSI ITALY | | | FELDBERG W GER | | | | 61 1 MO |
| 2381 | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | SAHLENBURG W GER | 53 52 N | 8 37 E | 56-58 | 793 DA |
| 2382 | WEDDEWARDEN W GER | 53 36 06 N | 8 32 06 E | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | 57-58 | 3754 HR |
| 2383 | WEDDEWARDEN W GER | 53 36 06 N | 8 32 06 E | HELGOLAND W GER | 54 10 47 N | 7 53 16 E | 57-59 | 8055 HR |
| 2384 | HOCHBLAUEN W GER | 47 46 19 N | 7 42 06 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 60 | 1 MO |
| 2387 | WENVOE WALES | 51 27 32 N | 3 16 48 W | KREFELD W GER | 51 25 30 N | 6 28 30 E | 62-64 | 12146 HR |
| 2388 | LOHBRUGGE W GER | 53 30 04 N | 10 11 29 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 64 | 2281 HR |
| 2389 | FELDBERG/TAUNUS W GER | 50 14 32 N | 8 29 47 E | DONNERSBERG W GER | 49 37 31 N | 7 55 11 E | 64 | 24 DA |
| 2390 | DONNERSBERG W GER | 49 37 31 N | 7 55 11 E | HEIDELBERG W GER | 49 23 14 N | 8 36 29 E | 64 | 16 DA |
| 2391 | DONNERSBERG W GER | 49 37 31 N | 7 55 11 E | FELDBERG/SCHWARZWALD* | 47 52 25 N | 8 0 23 E | 64 | 22 DA |
| 2392 | RADEBEUL W GER | | | KOLBERG W GER | | | 64-67 | |
| 2393 | FICHTELBERG W GER | | | KOLBERG W GER | | | 64-67 | |
| 2394 | PRAGUE CZECHOSLOVAKIA | | | KOLBERG W GER | | | 64-67 | |
| 2401 | FLENSBURG W GER | 54 47 28 N | 9 27 11 E | NORDERNEY W GER | 53 42 36 N | 7 09 37 E | 54-55 | 1437 HR |
| 2402 | WEINBIET W GER | 49 22 37 N | 8 07 20 E | KAISERSLAUTERN W GER | 49 26 52 N | 7 46 35 E | 54 | 7 MO |
| 2403 | WEINBIET W GER | 49 22 37 N | 8 07 20 E | TUBINGEN W GER | 48 31 17 N | 9 03 41 E | 54 | 7 MO |
| 2404 | FLENSBURG W GER | 54 47 28 N | 9 27 11 E | WITTSMOOR W GER | 53 37 43 N | 9 43 37 E | 54-55 | 10 MO |
| 2405 | FELDBERG W GER | 50 13 59 N | 8 27 33 E | KARLSRUHE W GER | 49 00 38 N | 8 24 48 E | 54-55 | 14 MO |
| 2406 | HAMBURG W GER | 53 31 16 N | 10 06 19 E | MEIERWIK W GER | 54 49 13 N | 9 31 E | 54 | 6 MO |
| 2407 | HOHENPEISSENBERG* | 47 48 07 N | 11 00 50 E | TUBINGEN W GER | 48 31 17 N | 9 03 41 E | 54 | 7 MO |
| 2409 | BREMEN W GER | 53 06 32 N | 8 52 40 E | LINDAU W GER | 51 39 11 N | 10 07 29 E | 54-55 | 1 YR |
| 2410 | FLENSBURG W GER | 54 47 28 N | 9 27 11 E | NORDERNEY W GER | 53 42 36 N | 7 09 37 E | 54-55 | 11 MO |
| 2411 | BIELSTEIN W GER | 51 54 29 N | 8 49 18 E | WITTSMOOR W GER | 53 37 43 N | 9 43 37 E | 54-55 | 16 MO |
| 2412 | OSTERLOOG W GER | 53 38 10 N | 7 11 59 E | MEIERWIK W GER | 54 49 13 N | 9 31 00 E | 54 | 6 MO |
| 2413 | WEINBIET W GER | 49 22 37 N | 8 07 20 E | KARLSRUHE W GER | 49 00 38 N | 8 24 48 E | 54 | 8 MO |
| 2414 | HANNOVER W GER | 52 19 27 N | 9 44 28 E | SCHLESWIG W GER | 54 31 42 N | 9 33 00 E | 54-55 | 9 MO |
| 2415 | HEIDELBERG W GER | 49 24 15 N | 8 43 43 E | AACHEN W GER | 50 46 45 N | 6 04 43 E | 54 | 6 MO |
| 2416 | FELDBERG W GER | 50 13 59 N | 8 27 33 E | FREIBURG W GER | 47 57 28 N | 7 51 50 E | 54-55 | 14 MO |
| 2417 | GRUNTEN W GER | 47 33 15 N | 10 19 06 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 54-55 | 15 MO |
| 2418 | HOHER MEIBNER W GER | 51 12 09 N | 9 51 E | NORDERNEY W GER | 53 42 36 N | 7 09 37 E | 54-55 | 16 MO |
| 2419 | WROTHAM ENG | 51 19 11 N | 0 17 20 E | KREFELD W GER | 51 25 20 N | 6 28 39 E | 55-57 | 7103 HR |
| 2421 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | FREIBURG W GER | 47 57 28 N | 7 51 50 E | | |
| 2422 | BIELSTEIN W GER | 51 54 28 N | 8 49 15 E | LINDAU W GER | 51 39 11 N | 10 07 29 E | | |
| 2423 | MUNSTER W GER | 51 57 56 N | 7 21 39 E | AACHEN W GER | 50 46 45 N | 6 04 43 E | 54-55 | 14 MO |
| 2428 | BIELSTEIN W GER | 51 54 28 N | 8 49 15 E | AACHEN W GER | 50 46 45 N | 6 04 43 E | 52 | 3 MO |
| 2429 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | AACHEN W GER | 50 46 45 N | 6 04 43 E | 52 | 3 MO |
| 2440 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 56-57 | 4276 HR |
| 2441 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 57-58 | 4855 HR |
| 2442 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 60-61 | 8318 HR |
| 2443 | HORNISGRINDE W GER | 48 36 49 N | 8 12 12 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 56-57 | 6 MO |
| 2444 | HAMBACH W GER | 49 20 03 N | 8 07 28 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 62-67 | 30240 HR |
| 2445 | HAMBACH W GER | 49 20 03 N | 8 07 28 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 64-67 | 21855 HR |
| 2446 | HAMBACH W GER | 49 20 03 N | 8 07 28 E | DARMSTADT W GER | 49 51 54 N | 8 37 33 E | 63-67 | 27714 HR |
| 2475 | SAIGON VIET | 10 44 58 N | 106 37 47 E | BANGKOK THAI | 13 33 40 N | 100 38 47 E | 63 | 5352 HR |
| 2476 | PHILLIPINES | 15 23 58 N | 120 32 09 E | TAIWAN | 22 38 26 N | 120 15 18 E | 59 | 366 HR |
| 2603 | AJACCIO CORSICA | | | MONACO FR | | | | |
| 2632 | LANNION FR | 48 44 05 N | 3 26 45 W | CONCHES FR | 48 55 26 N | 0 58 15 E | 62 | 1319 HR |
| 2633 | LANNION FR | 48 44 05 N | 3 26 45 W | CONCHES FR | 48 55 26 N | 0 58 15 E | 62 | 1319 HR |
| 2634 | LANNION FR | 48 44 05 N | 3 26 45 W | CONCHES FR | 48 55 26 N | 0 58 15 E | 62 | 874 HR |
| 2635 | LANNION FR | 48 44 05 N | 3 26 45 W | CONCHES FR | 48 55 26 N | 0 58 15 E | 62 | 874 HR |
| 2636 | LANNION FR | 48 44 05 N | 3 26 45 W | VILLEDIEU FR | 48 50 54 N | 1 16 41 W | 63 | 2 MO |
| 2637 | LANNION FR | 48 44 05 N | 3 26 45 W | VILLEDIEU FR | 48 50 54 N | 1 16 41 W | 63 | 2 MO |
| 2638 | LANNION FR | 48 44 05 N | 3 26 45 W | LAFERTE SOUS JOUARRE** | 48 57 18 N | 3 07 30 E | 63 | |
| 2639 | LANNION FR | 48 44 05 N | 3 26 45 W | LAFERTE SOUS JOUARRE** | 48 57 18 N | 3 07 30 E | 63 | |
| 2644 | LE HAVRE FR | | | VIERVILLE FR | | | 65 | 1312 HR |
| 2645 | LE HAVRE FR | | | VIERVILLE FR | | | 65 | 1312 HR |
| 2646 | LAHERLIERE FR | | | NOYERS ST MARTIN FR | | | | |
| 2647 | MARSEILLES FR | 43 23 N | 5 26 E | LEUCATE FR | 42 55 N | 3 03 E | 68-69 | 9 MO |
| 2648 | MARSEILLES FR | 43 23 N | 5 26 E | LEUCATE FR | 42 55 N | 3 03 E | 68-69 | 9 MO |
| 2649 | BASTIA CORSICA | 42 41 N | 9 24 E | LEUCATE FR | 42 55 N | 3 03 E | 68-69 | 9 MO |
| 2650 | BASTIA CORSICA | 42 41 N | 9 24 E | LEUCATE FR | 42 55 N | 3 03 E | 68-69 | 9 MO |
| 2851 | PUNTA BADDE URBARA* | 40 09 N | 8 30 E | LEUCATE FR | 42 55 N | 3 03 E | 68-69 | 11 MO |
| 2705 | ST VINCENT W IND | 13 09 N | 61 11 W | BARBADOS W IND | 13 11 42 N | 59 35 18 W | 62-63 | 6241 HR |
| 2800 | MT CARMEL ISRAEL | | | MT OLYMPUS CYPRUS | | | 51 | 2400 HR |
| 2801 | MT CARMEL ISRAEL | | | MT OLYMPUS CYPRUS | | | 51 | 2400 HR |

*W GER **FR *SARDINIA

TABLE 2. PROPAGATION PATH PARAMETERS, BASIC TRANSMISSION LOSS, AND PREDICTED REFERENCE VALUES

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | HLT M | DLT KM | HLR M | DLR KM | THETA MR | LB OBSERVED | | | | | TN LBCR | 101 LBCR | ESSA 70 LBCR |
|----------|-------|--------|------|-----|-------|-------|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|---------|----------|--------------|
| | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | |
| 1* | 101.9 | 196.0 | 247 | 305 | 110.6 | 9.1 | 2 | 63 | 46.0 | 607 | 12.8 | 50.72 | 171.8 | 175.6 | 180.1 | 182.3 | 188.1 | 188.3 | |
| 2* | 96.1 | 102.2 | 119 | 305 | 125.0 | 9.1 | 1 | 384 | 98.2 | 384 | 4.0 | 61.99 | 133.6 | 138.4 | 145.6 | 151.1 | 157.6 | 154.4 | |
| 3* | 92.9 | 155.8 | 83 | 300 | 164.6 | 9.1 | 2 | 402 | 52.0 | 351 | 7.2 | 12.63 | 155.5 | 166.4 | 176.1 | 183.3 | 188.3 | 169.9 | |
| 5* | 102.9 | 149.8 | 45 | 289 | 100.3 | 13.7 | 2 | 471 | 29.0 | 576 | 18.5 | 14.69 | 150.0 | 161.2 | 171.3 | 180.3 | 185.3 | 170.9 | |
| 6* | 94.1 | 136.0 | 147 | 310 | 126.8 | 9.1 | 2 | 280 | 107.2 | 348 | 16.3 | 28.81 | 133.5 | 142.1 | 154.9 | 163.5 | 168.4 | 156.8 | |
| 7* | 98.1 | 232.9 | 788 | 279 | 42.7 | 9.1 | 2 | 1097 | 106.1 | 1301 | 65.9 | 45.35 | 164.2 | 168.6 | 172.9 | 177.3 | 180.9 | 184.9 | |
| 8* | 104.5 | 281.7 | 84 | 306 | 158.5 | 9.8 | 2 | 213 | 39.5 | 276 | 8.8 | 30.93 | 165.8 | 171.8 | 182.0 | 189.6 | 193.8 | 183.8 | |
| 9* | 105.9 | 365.5 | 90 | 311 | 91.4 | 9.8 | 2 | 171 | 34.2 | 253 | 9.8 | 40.36 | 175.9 | 184.6 | 189.9 | 195.1 | 195.9 | 188.7 | |
| 12* | 101.1 | 240.0 | 544 | 301 | 169.2 | 28.7 | 2 | 823 | 79.0 | 122 | 2.6 | 50.98 | 175.0 | 179.8 | 184.9 | 190.8 | 194.4 | 186.9 | |
| 13* | 102.9 | 238.0 | 44 | 317 | 104.2 | 9.8 | 2 | 48 | 43.3 | 198 | 52.1 | 19.07 | 157.2 | 166.6 | 176.6 | 183.4 | 191.6 | 170.1 | |
| 15* | 96.9 | 284.7 | 145 | 296 | 121.9 | 9.8 | 2 | 701 | 17.5 | 293 | 6.2 | 35.74 | 173.0 | 178.4 | 184.3 | 189.7 | 191.1 | 187.8 | |
| 16* | 93.7 | 217.7 | 471 | 304 | 49.7 | 9.1 | 2 | 457 | 199.3 | 463 | 11.1 | 34.88 | 150.0 | 153.0 | 158.5 | 164.5 | 170.5 | 158.0 | |
| 17* | 101.1 | 222.6 | 124 | 305 | 94.5 | 9.1 | 2 | 348 | 57.6 | 435 | 4.8 | 81.20 | 167.7 | 176.5 | 184.7 | | | 195.9 | |
| 18* | 94.5 | 446.3 | 71 | 313 | 137.2 | 9.8 | 2 | 121 | 39.7 | 250 | 10.0 | 48.55 | 176.9 | 184.9 | 191.5 | 195.2 | 198.8 | 193.3 | |
| 19* | 93.7 | 236.4 | 32 | 305 | 175.0 | 27.4 | 2 | 197 | 62.5 | 232 | 8.0 | 19.70 | 156.9 | 164.9 | 173.9 | 182.2 | 187.8 | 173.3 | |
| 20* | 96.5 | 238.1 | 42 | 317 | 133.5 | 9.8 | 2 | 50 | 46.9 | 195 | 51.7 | 18.39 | 155.1 | 164.3 | 174.9 | 181.9 | 187.0 | 168.8 | |
| 21* | 101.5 | 119.0 | 102 | 306 | 159.7 | 6.7 | 2 | 348 | 38.3 | 264 | 7.5 | 13.00 | 151.5 | 159.7 | 168.1 | 172.4 | 175.4 | 167.3 | |
| 22* | 101.5 | 119.0 | 102 | 306 | 159.7 | 9.8 | 2 | 348 | 38.3 | 264 | 7.5 | 12.59 | 149.5 | 155.8 | 164.7 | 169.5 | 171.9 | 166.2 | |
| 23* | 101.5 | 119.0 | 102 | 306 | 124.0 | 9.8 | 2 | 348 | 38.3 | 264 | 7.5 | 13.52 | 152.0 | 159.6 | 167.8 | 171.6 | 173.4 | 167.2 | |
| 26* | 102.1 | 468.9 | 148 | 315 | 103.0 | 9.1 | 2 | 64 | 51.0 | 366 | 19.0 | 53.97 | 178.3 | 186.1 | 192.1 | | | 197.7 | |
| 28* | 101.1 | 204.9 | 72 | 305 | 127.4 | 9.1 | 2 | 274 | 37.8 | 341 | 18.1 | 20.21 | 153.9 | 163.8 | 174.1 | 183.3 | 201.3 | 178.3 | |
| 29* | 92.3 | 195.1 | 111 | 300 | 129.5 | 9.1 | 2 | 357 | 38.6 | 383 | 32.8 | 19.90 | 149.3 | 158.5 | 169.4 | 178.3 | 187.7 | 170.9 | |
| 31* | 93.7 | 220.6 | 60 | 305 | 101.8 | 27.4 | 2 | 293 | 11.3 | 212 | 26.4 | 20.96 | 160.9 | 169.9 | 178.9 | 186.2 | 191.3 | 172.7 | |
| 32* | 100.7 | 296.9 | 16 | 336 | 120.4 | 9.1 | 2 | 40 | 45.5 | 7 | 7.9 | 27.16 | 159.7 | 165.5 | 172.5 | 179.8 | 185.5 | 181.8 | |
| 33* | 101.9 | 224.3 | 73 | 304 | 110.6 | 9.1 | 2 | 293 | 25.6 | 232 | 3.5 | 28.97 | 174.0 | 180.1 | 188.0 | 192.1 | | 183.6 | |
| 34* | 92.9 | 154.0 | 111 | 303 | 24.4 | 9.1 | 2 | 284 | 60.7 | 145 | 8.9 | 16.00 | 153.0 | 160.7 | 168.5 | 173.1 | 177.0 | 175.0 | |
| 35* | 94.7 | 160.7 | 18 | 306 | 203.6 | 9.1 | 2 | 177 | 59.5 | 220 | 27.2 | 10.36 | 149.6 | 159.8 | 169.6 | 179.2 | 182.7 | 167.3 | |
| 36* | 107.9 | 224.8 | 298 | 294 | 52.4 | 19.2 | 2 | 412 | 51.0 | 622 | 25.1 | 36.95 | 167.0 | 174.0 | 181.0 | 187.0 | 190.0 | 184.7 | |
| 37* | 107.5 | 270.5 | 119 | 309 | 113.4 | 9.1 | 2 | 34 | 23.7 | 147 | 23.8 | 28.83 | 170.7 | 178.7 | 189.8 | 195.8 | | 184.9 | |
| 38* | 97.9 | 279.5 | 87 | 306 | 167.0 | 9.8 | 2 | 232 | 32.4 | 277 | 9.0 | 31.28 | 171.2 | 180.1 | 186.5 | 191.2 | 194.2 | 184.5 | |
| 39* | 105.1 | 73.7 | 72 | 300 | 121.9 | 9.1 | 2 | 366 | 47.5 | 366 | 18.1 | 4.03 | 139.3 | 144.8 | 147.2 | 148.8 | 150.8 | 142.8 | |
| 41* | 95.7 | 146.0 | 252 | 291 | 82.0 | 19.2 | 2 | 689 | 26.0 | 524 | 8.7 | 28.77 | 161.0 | 170.7 | 175.0 | 179.0 | 185.0 | 176.8 | |
| 42* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 158.6 | 168.7 | 180.5 | 185.8 | 190.5 | 171.2 | |
| 43* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 163.5 | 171.6 | 181.1 | 190.3 | 199.3 | 171.2 | |
| 44* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 150.8 | 161.5 | 171.8 | 181.0 | 185.6 | 171.2 | |
| 45* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 159.6 | 168.2 | 176.3 | 187.8 | 193.8 | 171.2 | |
| 46* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 156.8 | 167.8 | 177.3 | 185.1 | 191.1 | 171.2 | |
| 47* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 153.7 | 164.9 | 176.6 | 188.1 | 199.3 | 171.2 | |
| 48* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 154.6 | 164.2 | 177.2 | 189.5 | 199.3 | 171.2 | |
| 49* | 98.7 | 201.1 | 107 | 300 | 189.0 | 9.1 | 2 | 357 | 32.7 | 396 | 33.4 | 19.51 | 160.6 | 173.0 | 185.9 | 199.3 | | 171.2 | |
| 51* | 96.5 | 297.4 | 10 | 337 | 152.4 | 9.1 | 2 | 23 | 49.1 | 7 | 8.4 | 25.51 | 160.1 | 169.8 | 178.1 | 184.7 | 199.6 | 180.7 | |
| 52* | 93.3 | 167.8 | 59 | 307 | 155.4 | 9.1 | 2 | 81 | 36.2 | 38 | 39.8 | 10.73 | 144.2 | 157.3 | 169.6 | 178.2 | 209.8 | 160.9 | |
| 53* | 99.7 | 308.5 | 451 | 294 | 75.0 | 9.1 | 2 | 884 | 76.3 | 174 | 14.7 | 41.39 | 175.8 | 181.6 | 188.4 | | | 191.9 | |
| 54* | 99.7 | 188.9 | 256 | 297 | 75.0 | 19.2 | 2 | 408 | 25.3 | 445 | 5.5 | 31.45 | 160.3 | 167.3 | 174.3 | 183.3 | 187.3 | 180.1 | |
| 55* | 96.3 | 181.7 | 56 | 304 | 146.9 | 9.1 | 2 | 216 | 46.7 | 226 | 32.1 | 10.11 | 140.7 | 152.9 | 165.8 | 177.2 | 182.7 | 161.2 | |
| 56* | 98.9 | 72.4 | 78 | 300 | 149.4 | 9.1 | 2 | 369 | 53.3 | 369 | 18.5 | 3.06 | 136.8 | 141.7 | 145.4 | 149.4 | 154.4 | 135.9 | |
| 57* | 95.5 | 202.5 | 48 | 306 | 150.0 | 27.4 | 2 | 209 | 59.4 | 255 | 32.4 | 15.98 | 152.9 | 162.7 | 173.0 | 182.8 | 189.8 | 170.4 | |
| 58* | 106.9 | 304.1 | 598 | 282 | 55.5 | 9.1 | 2 | 1573 | 68.4 | 451 | 17.8 | 32.90 | 168.5 | 178.8 | 188.8 | 196.2 | 204.1 | 188.0 | |
| 59* | 94.9 | 243.4 | 95 | 302 | 49.4 | 9.1 | 2 | 305 | 88.5 | 360 | 19.4 | 20.71 | 158.2 | 166.1 | 176.2 | 184.8 | 191.3 | 178.4 | |
| 60* | 96.5 | 130.1 | 227 | 306 | 92.0 | 9.1 | 2 | 317 | 54.3 | 85 | 6.6 | 15.87 | 147.7 | 156.3 | 164.9 | 168.9 | 173.7 | 172.1 | |
| 61* | 96.3 | 219.9 | 304 | 292 | 106.7 | 19.2 | 2 | 525 | 88.8 | 627 | 6.6 | 62.12 | 168.0 | 174.0 | 181.0 | 188.0 | | 189.3 | |
| 62* | 96.3 | 215.5 | 308 | 296 | 78.0 | 19.2 | 2 | 241 | 39.0 | 631 | 6.4 | 63.89 | 165.0 | 173.0 | 182.0 | 188.0 | | 189.0 | |
| 63* | 94.7 | 191.4 | 126 | 299 | 67.4 | 9.1 | 2 | 415 | 46.1 | 390 | 32.6 | 20.93 | 167.2 | 172.8 | 178.7 | 182.7 | 183.8 | 172.1 | |
| 64* | 94.7 | 191.4 | 126 | 299 | 67.4 | 9.1 | 2 | 415 | 46.1 | 390 | 32.6 | 20.93 | 166.3 | 171.4 | 181.0 | 189.7 | 193.2 | 172.1 | |
| 66* | 107.9 | 100.3 | 134 | 308 | 62.5 | 9.1 | 2 | 332 | 88.7 | 357 | 4.0 | 56.24 | 153.1 | 158.6 | 165.1 | 169.8 | 173.7 | 168.4 | |
| 71* | 99.7 | 308.5 | 451 | 294 | 75.0 | 9.1 | 2 | 884 | 76.3 | 174 | 14.7 | 41.46 | 173.3 | 176.6 | 182.0 | 188.4 | | 191.9 | |
| 90* | 59.8 | 255.2 | 255 | 324 | 323.7 | 9.1 | 2 | 433 | 57.9 | 597 | 26.9 | 30.24 | 164.0 | 174.8 | 183.9 | 191.9 | 195.6 | 180.2 | |
| 91* | 59.8 | 80.4 | 102 | 329 | 323.7 | 9.1 | 2 | 488 | 31.0 | 328 | 2.1 | 38.54 | 130.4 | 134.2 | 141.5 | 152.2 | 155.2 | 142.4 | |
| 92* | 59.8 | 80.4 | 51 | 334 | 323.7 | 9.1 | 1 | 207 | 76.8 | 207 | 3.6 | 1.15 | 130.7 | 134.8 | 137.9 | 143.4 | 152.4 | 128.8 | |
| 93 | 59.8 | 257.5 | 60 | 340 | 323.7 | 9.1 | 2 | 229 | 62.8 | 55 | 6.4 | 17.38 | 159.9 | 166.7 | 177.4 | 186.1 | 192.3 | 172.5 | |
| 94 | 59.8 | 362.1 | 60 | 341 | 323.7 | 9.1 | 2 | 229 | 62.8 | 37 | 12.9 | 28.26 | 167.4 | 175.6 | 185.9 | 194.7 | 198.4 | 179.7 | |
| 95* | 185.8 | 250.8 | 261 | 323 | 182.9 | 9.1 | 2 | 421 | 54.2 | 597 | 26.8 | 32.37 | 166.4 | 179.8 | 186.4 | 189.6 | | 189.5 | |
| 96* | 185.8 | 76.0 | 107 | 328 | 182.9 | 9.1 | 2 | 518 | 26.6 | 328 | 2.1 | 44.42 | 147.8 | 161.3 | 166.3 | 174.8 | 180.8 | 160.8 | |
| 97* | 185.8 | 84.8 | 50 | 334 | 182.9 | 9.1 | 2 | 244 | 56.0 | 207 | 3.7 | 4.04 | 153.4 | 159.4 | 175.9 | 179.9 | | 150.3 | |
| 186 | 220.0 | 1185.0 | | 312 | | | | 2 | 0 | 20.0 | 0 | 21.6 | 262.5 | 264.5 | 266.5 | 268.0 | 269.5 | 258.2 | |
| 187* | 40.5 | 11.9 | 15 | 330 | 43.6 | 4.6 | 0 | | | | | | 88.0 | 92.4 | 94.4 | 96.0 | 97.4 | 93.2 | |
| 188* | 75.5 | 11.9 | 15 | 330 | 40.5 | 4.3 | 0 | | | | | | 90.4 | 93.8 | 96.2 | 98.4 | 100.8 | 94.3 | |
| 189* | 165.2 | 11.9 | 15 | 330 | 37.5 | 4.1 | 0 | | | | | | 98.4 | 99.4 | 101.1 | 103.7 | 109.3 | 95.9 | |
| 190* | 455.0 | 11.9 | 15 | 330 | 36.0 | 3.9 | 0 | | | | | | 84.4 | 92.2 | 99.0 | 102.2 | 103.6 | 101.5 | |
| 191* | 952.0 | 11.9 | 15 | 330 | 35.1 | 3.8 | 0 | | | | | | 114.9 | 120.6 | 128.2 | 135.1 | 139.0 | 112.8 | |
| 192* | 40.5 | 18.6 | 23 | 330 | 43.6 | 4.6 | 0 | | | | | | 102.2 | | | | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | HLT M | DLT KM | HLR M | DLR KM | THETA MR | LB OBSERVED | | | | | TN 101 LBCR | ESSA 70 LBCR | | |
|----------|--------|-------|------|-----|-------|-------|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|-------------|--------------|-------|-------|
| | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | | |
| 202* | 65.8 | 211.8 | 52 | 290 | 159.7 | 9.1 | 2 | 472 | 75.3 | 572 | 27.8 | 18.18 | 160.0 | 169.7 | 179.5 | 182.6 | 170.8 | 170.8 | | |
| 203* | 59.8 | 229.9 | 45 | 316 | 161.2 | 9.8 | 2 | 57 | 50.0 | 233 | 4.2 | 16.91 | 158.9 | 162.9 | 172.9 | 180.3 | 184.5 | 168.1 | 168.2 | |
| 204* | 215.8 | 197.2 | 132 | 305 | 161.8 | 9.1 | 2 | 610 | 100.6 | 390 | 22.0 | 20.92 | 163.7 | 173.2 | 181.6 | 195.8 | 207.2 | 185.2 | 185.1 | |
| 206* | 71.8 | 203.4 | 36 | 305 | 198.7 | 27.4 | 2 | 241 | 52.4 | 246 | 28.5 | 16.37 | 149.6 | 159.4 | 170.9 | 180.3 | 191.4 | 168.3 | 168.6 | |
| 208* | 209.8 | 132.6 | 75 | 308 | 102.4 | 9.1 | 2 | 46 | 47.7 | 111 | 1.0 | 7.14 | 137.2 | 152.8 | 168.8 | 172.3 | 173.1 | 171.8 | 171.8 | |
| 209 | 560.0 | 158.0 | | 332 | | | | 305 | 32.6 | 367 | 12.7 | 18.96 | 167.5 | 181.6 | 189.8 | | | 189.5 | | |
| 210* | 179.8 | 203.0 | 36 | 305 | 192.6 | 27.4 | 2 | 239 | 51.4 | 247 | 28.5 | 16.42 | 150.0 | 164.0 | 175.2 | 184.1 | 187.3 | 176.7 | 176.8 | |
| 211* | 185.8 | 281.1 | 93 | 306 | 114.9 | 9.8 | 2 | 239 | 33.5 | 277 | 8.5 | 33.24 | 181.3 | 188.3 | 194.7 | 200.7 | | 190.2 | 189.8 | |
| 212* | 191.8 | 204.1 | 36 | 305 | 185.9 | 21.9 | 2 | 245 | 54.1 | 245 | 28.2 | 16.96 | 165.6 | 177.5 | 188.5 | 196.0 | 200.5 | 178.4 | 178.5 | |
| 213* | 191.8 | 204.1 | 36 | 305 | 185.9 | 21.9 | 2 | 245 | 54.1 | 245 | 28.2 | 16.96 | 165.6 | 177.5 | 188.5 | 196.0 | 200.5 | 178.4 | 178.5 | |
| 214* | 191.8 | 204.1 | 36 | 305 | 185.9 | 29.9 | 2 | 245 | 54.1 | 245 | 28.2 | 16.68 | 145.6 | 162.0 | 174.5 | 185.5 | 191.6 | 177.3 | 177.5 | |
| 215* | 191.8 | 204.1 | 36 | 305 | 185.9 | 37.5 | 2 | 245 | 54.1 | 246 | 28.9 | 16.41 | 143.4 | 160.6 | 174.3 | 184.0 | 190.3 | 176.7 | 176.7 | |
| 216* | 191.8 | 204.1 | 36 | 305 | 185.9 | 21.9 | 2 | 245 | 54.1 | 245 | 28.2 | 16.96 | 152.0 | 166.5 | 177.9 | 186.3 | 191.3 | 178.4 | 178.5 | |
| 217* | 59.8 | 231.6 | 86 | 304 | 148.7 | 9.1 | 2 | 317 | 36.5 | 232 | 3.0 | 29.63 | 167.8 | 175.7 | 183.3 | 184.9 | | 181.0 | 180.8 | |
| 219* | 81.8 | 203.0 | 34 | 305 | 182.3 | 33.5 | 2 | 239 | 51.5 | 247 | 28.5 | 16.40 | 140.3 | 151.8 | 164.9 | 174.3 | 182.4 | 168.4 | 168.8 | |
| 222* | 87.8 | 210.7 | 60 | 289 | 150.9 | 9.1 | 2 | 472 | 75.0 | 569 | 25.2 | 18.11 | 165.3 | 173.2 | 181.3 | 182.0 | 188.0 | 179.1 | 179.2 | |
| 223* | 179.8 | 180.1 | 57 | 304 | 146.3 | 9.1 | 2 | 220 | 45.1 | 223 | 32.3 | 9.99 | 137.0 | 153.9 | 170.3 | 184.3 | 190.5 | 167.8 | 168.0 | |
| 226 | 649.8 | 86.6 | | 327 | | | | 280 | 24.1 | 152 | 6.1 | 10.88 | 164.4 | 183.1 | 210.6 | | | 181.8 | | |
| 228* | 209.8 | 132.6 | 77 | 309 | 102.4 | 9.1 | 2 | 49 | 47.9 | 112 | 1.0 | 5.54 | 136.0 | 153.4 | 168.0 | 170.7 | 172.3 | 171.4 | 171.4 | |
| 229 | 757.8 | 159.5 | | 327 | | | | 274 | 87.7 | 146 | 5.3 | 11.20 | 182.2 | 191.4 | 196.5 | | | 187.2 | | |
| 233 | 721.8 | 108.6 | | 324 | | | | 287 | 53.9 | 122 | 10.0 | 13.04 | 175.1 | 187.7 | 202.0 | | | 186.3 | | |
| 234 | 757.8 | 113.8 | | 324 | | | | 302 | 44.6 | 128 | 13.7 | 14.73 | 178.0 | 195.0 | 213.0 | | | 188.5 | | |
| 244* | 215.8 | 197.2 | 132 | 305 | 161.8 | 9.1 | 2 | 610 | 100.6 | 390 | 22.0 | 20.92 | 163.7 | 171.2 | 178.8 | 184.4 | 188.8 | 185.2 | 185.1 | |
| 250* | 100.0 | 79.6 | 116 | 248 | 16.8 | 5.8 | 0 | | | | | | 125.2 | 128.9 | 131.4 | 134.6 | 137.1 | 115.1 | 126.9 | |
| 252* | 100.0 | 113.0 | 187 | 250 | 16.8 | 5.8 | 0 | | | | | | 126.8 | 131.4 | 135.0 | 137.7 | 139.7 | 127.2 | 130.8 | |
| 254* | 100.0 | 156.0 | 114 | 251 | 16.8 | 5.8 | 1 | 1487 | 113.0 | 1487 | 43.0 | 2.77 | 135.1 | 144.7 | 152.5 | 157.5 | 160.3 | 152.3 | 142.4 | |
| 256* | 100.0 | 365.6 | 134 | 263 | 16.8 | 5.8 | 2 | 1478 | 112.2 | 890 | 4.9 | 29.74 | 178.7 | 186.3 | 196.3 | 204.6 | 212.1 | 194.5 | 194.3 | |
| 258* | 100.0 | 634.6 | 171 | 272 | 16.8 | 11.9 | 2 | 1497 | 109.8 | 433 | 8.0 | 64.60 | 191.6 | 198.7 | 215.7 | 220.3 | 230.4 | 209.3 | 209.1 | |
| 260* | 100.0 | 995.9 | 384 | 276 | 16.8 | 11.6 | 2 | 1487 | 110.8 | 396 | 16.6 | 110.16 | 215.7 | 224.1 | 228.2 | 232.4 | 235.9 | 227.6 | 225.6 | |
| 262* | 100.0 | 227.5 | 128 | 255 | 16.8 | 9.8 | 2 | 1495 | 117.6 | 1295 | 46.0 | 9.05 | 125.7 | 139.8 | 163.4 | 175.1 | 185.5 | 165.1 | 152.1 | |
| 264* | 100.0 | 634.6 | 171 | 272 | 16.8 | 11.9 | 2 | 1497 | 109.8 | 433 | 8.0 | 64.60 | 212.4 | 214.0 | 216.8 | 219.6 | 225.6 | 209.3 | 209.1 | |
| 266* | 1040.1 | 113.0 | 187 | 250 | 3.0 | 2.6 | 0 | | | | | | | 134.6 | 142.1 | 147.5 | | 130.4 | 148.8 | |
| 267* | 9250.0 | 113.0 | 187 | 250 | 3.0 | 2.6 | 0 | | | | | | | 147.5 | 149.4 | 153.9 | 159.5 | | 154.5 | 164.5 |
| 268* | 9350.0 | 113.0 | 187 | 250 | 3.0 | 2.6 | 0 | | | | | | | 146.9 | 149.9 | 152.7 | 157.8 | | 152.7 | 164.5 |
| 270* | 192.8 | 79.6 | 116 | 248 | 32.0 | 5.5 | 0 | | | | | | 127.2 | 130.7 | 133.2 | 135.7 | 138.7 | 115.6 | 131.6 | |
| 272* | 192.8 | 113.0 | 187 | 250 | 32.0 | 5.5 | 0 | | | | | | 129.1 | 133.1 | 137.4 | 140.6 | 144.5 | 116.0 | 135.6 | |
| 274* | 192.8 | 156.0 | 114 | 251 | 32.0 | 5.5 | 1 | 1487 | 113.0 | 1487 | 43.0 | 2.65 | 142.8 | 148.6 | 157.2 | 163.0 | 169.6 | 152.2 | 148.5 | |
| 276* | 192.8 | 365.6 | 134 | 263 | 32.0 | 5.5 | 2 | 1478 | 112.2 | 890 | 4.9 | 29.68 | 175.6 | 186.7 | 194.4 | 200.2 | 207.8 | 199.5 | 198.9 | |
| 278* | 192.8 | 634.6 | 171 | 272 | 32.0 | 11.9 | 2 | 1497 | 109.8 | 433 | 8.0 | 64.45 | 192.3 | 198.3 | 206.8 | 212.3 | 216.4 | 214.8 | 214.4 | |
| 279 | 409.9 | 265.7 | 402 | 252 | 3.7 | 10.7 | 2 | 1373 | 10.9 | 1649 | 25.8 | 34.60 | 201.4 | 204.4 | 210.4 | 214.8 | 219.5 | 209.6 | 206.2 | |
| 280 | 1040.1 | 265.7 | 402 | 252 | 8.5 | 10.7 | 2 | 1373 | 10.9 | 1649 | 25.8 | 34.16 | 215.5 | 216.6 | 220.3 | 228.3 | 230.2 | 216.9 | 214.1 | |
| 290* | 230.0 | 79.6 | 116 | 248 | 32.0 | 5.5 | 0 | | | | | | 118.8 | 122.2 | 128.6 | 130.4 | 131.6 | 115.9 | 132.9 | |
| 292* | 230.0 | 113.0 | 187 | 250 | 32.0 | 5.5 | 0 | | | | | | 119.6 | 124.0 | 135.1 | 137.7 | 139.0 | 120.6 | 136.8 | |
| 294* | 230.0 | 156.0 | 114 | 251 | 32.0 | 5.5 | 1 | 1487 | 113.0 | 1487 | 43.0 | 2.65 | 130.9 | 141.3 | 153.7 | 157.8 | 159.6 | 153.0 | 149.9 | |
| 296* | 230.0 | 365.6 | 134 | 263 | 32.0 | 5.5 | 2 | 1478 | 112.2 | 890 | 4.9 | 29.68 | 175.8 | 186.2 | 194.4 | 204.2 | 207.0 | 200.9 | 200.2 | |
| 297 | 751.0 | 113.0 | 187 | 250 | 2.7 | 1.5 | 0 | | | | | | 131.0 | 132.0 | 135.0 | 140.0 | 143.0 | 144.5 | 146.4 | |
| 298* | 9361.3 | 113.0 | 187 | 250 | 2.7 | 1.5 | 0 | | | | | | 149.0 | 151.5 | 154.0 | 163.0 | 167.0 | 152.0 | 164.5 | |
| 299* | 751.0 | 139.1 | 518 | 249 | 1.5 | 2.7 | 0 | | | | | | 124.0 | 125.0 | 127.5 | 130.5 | 132.5 | 132.0 | 148.7 | |
| 300* | 9361.3 | 139.1 | 518 | 249 | 1.5 | 2.7 | 0 | | | | | | 154.0 | 156.5 | 158.5 | 161.0 | 163.5 | 155.0 | 166.8 | |
| 302* | 230.0 | 227.5 | 128 | 255 | 32.0 | 9.8 | 2 | 1495 | 117.6 | 1295 | 46.0 | 8.92 | 121.5 | 135.2 | 164.4 | 176.3 | 179.3 | 175.3 | 165.7 | |
| 303 | 100.0 | 223.6 | 1422 | 241 | 12.4 | 13.7 | 1 | 4292 | 77.5 | 4292 | 146.1 | 62.95 | | | 165.3 | | | 159.0 | 162.2 | |
| 305 | 751.0 | 223.6 | 1422 | 241 | 7.3 | 16.5 | 1 | 4292 | 77.5 | 4292 | 146.1 | 63.00 | | | 191.6 | | | 191.9 | 179.9 | |
| 307 | 100.0 | 77.5 | 1130 | 236 | 12.4 | 6.0 | 0 | | | | | | | | 128.2 | | | | 122.5 | |
| 308 | 751.0 | 77.5 | 1130 | 236 | 7.3 | 6.0 | 0 | | | | | | | | 132.0 | | | | 137.8 | |
| 310* | 1046.0 | 79.6 | 116 | 248 | 3.0 | 13.1 | 0 | | | | | | 126.9 | 128.9 | 131.4 | 133.4 | 136.1 | 126.9 | 142.4 | |
| 311* | 1046.0 | 113.0 | 187 | 250 | 3.0 | 1.5 | 0 | | | | | | 143.7 | 147.3 | 150.1 | 153.0 | 156.8 | 130.9 | 149.7 | |
| 312* | 1046.0 | 113.0 | 187 | 250 | 3.0 | 13.1 | 0 | | | | | | 127.8 | 131.0 | 134.5 | 139.3 | 144.7 | 130.8 | 146.4 | |
| 313* | 1046.0 | 113.0 | 187 | 250 | 3.0 | 4.3 | 0 | | | | | | 137.0 | 138.5 | 141.0 | 143.8 | 148.4 | 129.9 | 148.1 | |
| 314* | 1046.0 | 156.0 | 114 | 251 | 3.0 | 13.1 | 1 | 1487 | 113.0 | 1487 | 43.0 | 2.72 | 132.0 | 150.7 | 164.5 | 174.1 | 178.8 | 154.0 | 160.3 | |
| 316* | 1046.0 | 365.6 | 134 | 263 | 3.0 | 13.1 | 2 | 1478 | 112.2 | 896 | 9.6 | 28.44 | 191.0 | 201.0 | 208.9 | 215.0 | 221.7 | 214.5 | 212.6 | |
| 317* | 1046.0 | 365.6 | 134 | 263 | 3.0 | 2.7 | 2 | 1478 | 112.2 | 881 | 1.6 | 30.55 | 209.6 | 217.4 | 223.2 | 228.1 | 231.9 | 218.6 | 216.9 | |
| 318* | 1046.0 | 634.6 | 171 | 272 | 3.0 | 2.7 | 2 | 1497 | 109.8 | 433 | 8.0 | 66.01 | 214.3 | 218.6 | 225.5 | 232.4 | 235.9 | 237.6 | 236.1 | |
| 319* | 751.0 | 223.6 | 1422 | 241 | 7.0 | 8.3 | 1 | 4292 | 77.5 | 4292 | 146.1 | 63.06 | 190.0 | 192.5 | 197.3 | 201.0 | 204.0 | 191.8 | 179.9 | |
| 320* | 751.0 | 223.6 | 1422 | 241 | 7.0 | 20.0 | 1 | 4292 | 77.5 | 4292 | 146.1 | 62.98 | 183.5 | 187.5 | 191.5 | 195.2 | 198.5 | 191.8 | 179.9 | |
| 321* | 9200.1 | 223.6 | 1422 | 241 | 2.5 | 3.6 | 1 | 4292 | 77.5 | 4292 | 146.1 | 63.15 | | 225.5 | 228.7 | 233.1 | 238.1 | 244.8 | 212.6 | |
| 322 | 1046.0 | 227.5 | 128 | 255 | 3.0 | 9.8 | 2 | 1495 | 117.6 | 1295 | 46.0 | 9.16 | 132.2 | 161.7 | 179.4 | 185.9 | 195.4 | 195.2 | 187.4 | |
| 323 | 1046.0 | 365.6 | 134 | 263 | 3.0 | 7.9 | 2 | 1478 | 112.2 | 890 | 4.9 | 29.45 | 179.7 | 200.2 | 203.9 | 209.7 | 214.3 | 215.4 | 213.7 | |
| 324 | 1046.0 | 365.6 | 134 | 263 | 3.0 | 10.1 | 2 | 1478 | 112.2 | 890 | 4.9 | 28.99 | 197.4 | 205.2 | 211.1 | | | 214.9 | 213.1 | |
| 325 | 1046.0 | 365.6 | 134 | 263 | 3.0 | 2.7 | 2 | 1478 | 112.2 | 881 | 1.6 | 30.55 | 178.2 | 200.2 | 207.8 | 211 | | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG H | HLT H | DLT KM | HLR M | DLR KM | THETA MR | OBSERVED | | | | | TN LBCR | 101 LBCR | ESSA 70 LBCR |
|----------|--------|--------|------|-------|-------|-------|-------|--------|-------|--------|----------|----------|-------|-------|-------|-------|---------|----------|--------------|
| | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | |
| 370* | 236.0 | 79.7 | 102 | 245 | 15.2 | 11.0 | 2 | 1739 | 57.0 | 1646 | 5.5 | 2.34 | 123.3 | 129.4 | 137.5 | 142.5 | 143.7 | 142.8 | 141.5 |
| 372* | 236.0 | 113.3 | 163 | 241 | 15.2 | 11.0 | 1 | 1829 | 56.8 | 1829 | 56.5 | 3.77 | 116.0 | 129.3 | 141.8 | 152.7 | 154.2 | 148.1 | 147.6 |
| 374* | 236.0 | 156.1 | 115 | 248 | 15.2 | 11.0 | 2 | 1730 | 59.0 | 1478 | 44.1 | 6.94 | 130.3 | 147.6 | 166.4 | 177.4 | 182.5 | 176.7 | 161.3 |
| 376* | 236.0 | 365.7 | 136 | 259 | 15.2 | 11.0 | 2 | 1744 | 56.5 | 893 | 4.9 | 34.33 | 174.5 | 181.9 | 186.5 | 190.5 | 194.0 | 200.4 | 199.5 |
| 382* | 236.0 | 227.5 | 131 | 251 | 15.2 | 9.8 | 2 | 1795 | 56.5 | 1295 | 46.0 | 14.43 | 135.6 | 149.9 | 169.2 | 182.2 | 186.7 | 183.1 | 180.9 |
| 385 | 1046.0 | 360.8 | 111 | 259 | 10.7 | 2.7 | 2 | 1692 | 56.5 | 881 | 1.6 | 40.83 | 205.5 | 209.4 | 212.8 | 216.5 | 221.3 | 223.3 | 221.0 |
| 389 | 1046.0 | 150.9 | 106 | 249 | 10.7 | 13.1 | 2 | 1686 | 56.0 | 1454 | 39.9 | 12.35 | | 184.9 | 191.1 | 194.7 | | 198.8 | 195.6 |
| 390* | 100.0 | 75.0 | 99 | 245 | 12.2 | 5.8 | 2 | 1692 | 57.0 | 1663 | 10.9 | 6.41 | 142.6 | 150.1 | 152.5 | 153.9 | 155.4 | 152.0 | 141.5 |
| 392* | 100.0 | 109.4 | 155 | 244 | 12.2 | 5.8 | 2 | 1780 | 51.5 | 1650 | 33.0 | 9.23 | 141.9 | 152.8 | 158.1 | 160.5 | 163.5 | 166.3 | 151.6 |
| 394* | 100.0 | 150.9 | 106 | 249 | 12.2 | 5.8 | 2 | 1686 | 56.0 | 1454 | 39.9 | 12.51 | 159.1 | 169.1 | 180.4 | 186.8 | 190.2 | 181.4 | 163.6 |
| 396* | 100.0 | 360.8 | 111 | 259 | 12.2 | 5.8 | 2 | 1692 | 56.5 | 890 | 4.9 | 40.12 | 183.2 | 188.1 | 202.6 | 208.0 | 211.7 | 198.7 | 198.0 |
| 398* | 100.0 | 630.0 | 136 | 268 | 12.2 | 11.9 | 2 | 1692 | 55.5 | 433 | 8.0 | 75.74 | 193.5 | 206.3 | 214.2 | 218.9 | 223.0 | 213.2 | 212.1 |
| 400 | 100.0 | 991.2 | 363 | 274 | 12.2 | 11.6 | 2 | 1692 | 56.0 | 396 | 16.4 | 122.10 | 224.9 | 227.8 | 231.8 | 235.0 | 249.1 | 232.4 | 229.2 |
| 404 | 100.0 | 630.0 | 136 | 268 | 12.2 | 11.9 | 2 | 1692 | 55.5 | 433 | 8.0 | 75.74 | 215.2 | 217.4 | 218.8 | 221.4 | 223.0 | 213.2 | 212.1 |
| 410 | 100.0 | 96.6 | 974 | 248 | 12.2 | 5.8 | 0 | | | | | | 123.4 | 124.9 | 126.4 | 127.9 | 128.8 | 113.2 | 126.9 |
| 412 | 100.0 | 129.6 | 493 | 250 | 12.2 | 5.8 | 0 | | | | | | 123.6 | 126.8 | 128.7 | 130.2 | | 109.7 | 131.8 |
| 414 | 100.0 | 172.8 | 470 | 257 | 12.2 | 5.8 | 0 | | | | | | 133.6 | 135.6 | 138.6 | 140.6 | 141.1 | 118.5 | 137.4 |
| 416 | 100.0 | 382.7 | 263 | 265 | 12.2 | 5.8 | 2 | 1356 | 186.0 | 893 | 4.9 | 22.68 | | 183.4 | 187.4 | 193.9 | | 192.2 | 178.5 |
| 418 | 100.0 | 651.6 | 221 | 276 | 12.2 | 11.9 | 2 | 1356 | 185.0 | 433 | 8.1 | 55.80 | 183.1 | 194.5 | 200.2 | 207.0 | 211.7 | 206.0 | 206.4 |
| 420 | 100.0 | 1012.9 | 373 | 279 | 12.2 | 11.6 | 2 | 1356 | 187.2 | 396 | 16.9 | 101.14 | | 220.6 | 224.7 | 227.6 | | 223.9 | 223.2 |
| 425* | 1046.0 | 244.3 | 301 | 260 | 10.7 | 9.8 | 2 | 1326 | 189.6 | 1295 | 44.8 | 1.12 | 133.2 | 141.0 | 154.6 | 168.7 | | 158.4 | 163.3 |
| 429* | 1046.0 | 382.7 | 263 | 265 | 10.7 | 2.7 | 2 | 1356 | 186.0 | 893 | 4.9 | 23.32 | 201.5 | 206.3 | 212.1 | 221.5 | | 215.9 | 213.9 |
| 430 | 1046.0 | 96.6 | 974 | 248 | 12.2 | 13.1 | 0 | | | | | | 138.5 | 139.1 | 142.8 | 147.2 | 148.8 | 129.7 | 142.5 |
| 431 | 1046.0 | 129.6 | 493 | 250 | 12.2 | 13.1 | 0 | | | | | | 125.6 | 129.4 | 132.3 | 135.3 | 136.5 | 133.2 | 147.4 |
| 432 | 1046.0 | 172.8 | 470 | 257 | 12.2 | 13.1 | 0 | | | | | | | 153.7 | 162.0 | 164.6 | | 138.1 | 153.0 |
| 435 | 9404.0 | 34.1 | 88 | 306 | 18.3 | 4.0 | 1 | 318 | 1.7 | 318 | 32.4 | 0.76 | 140.7 | 142.2 | 144.9 | 152.4 | 154.3 | 150.8 | 169.7 |
| 436 | 2860.0 | 34.1 | 88 | 306 | 18.3 | 4.0 | 1 | 318 | 1.7 | 318 | 32.4 | 0.76 | 131.8 | 132.5 | 134.2 | 136.4 | 137.0 | 145.3 | 154.3 |
| 437 | 1310.0 | 34.1 | 88 | 306 | 18.3 | 4.0 | 1 | 318 | 1.7 | 318 | 32.4 | 0.76 | | | 125.2 | | | 139.3 | 145.5 |
| 438 | 9404.0 | 34.3 | 88 | 306 | 18.3 | 4.0 | 0 | | | | | | | | 143.2 | | | | 147.8 |
| 439 | 2860.0 | 34.3 | 88 | 306 | 18.3 | 4.0 | 0 | | | | | | | | 132.7 | | | | 139.3 |
| 440 | 1310.0 | 34.3 | 88 | 306 | 18.3 | 4.0 | 0 | | | | | | | | 124.4 | | | | 133.7 |
| 441 | 9404.0 | 75.2 | 93 | 305 | 18.3 | 4.0 | 1 | 343 | 14.5 | 343 | 60.7 | 2.64 | | | 168.2 | | | 161.0 | 185.1 |
| 442 | 2860.0 | 75.2 | 93 | 305 | 18.3 | 4.0 | 1 | 343 | 14.5 | 343 | 60.7 | 2.64 | | | 146.2 | | | 150.6 | 167.4 |
| 444 | 9404.0 | 76.0 | 76 | 305 | 18.3 | 4.0 | 1 | 346 | 14.3 | 346 | 61.7 | 1.99 | 158.8 | 161.9 | 166.8 | 179.5 | 182.5 | 161.3 | 184.0 |
| 445 | 2860.0 | 76.0 | 76 | 305 | 18.3 | 4.0 | 1 | 346 | 14.3 | 346 | 61.7 | 1.99 | 144.5 | 146.3 | 148.8 | 156.8 | 157.8 | 151.0 | 165.2 |
| 446 | 1310.0 | 76.0 | 76 | 305 | 18.3 | 4.0 | 1 | 346 | 14.3 | 346 | 61.7 | 1.99 | 142.8 | 143.6 | 147.9 | 156.6 | 157.7 | 144.3 | 155.3 |
| 447* | 9404.0 | 80.5 | 125 | 296 | 18.3 | 4.0 | 0 | | | | | | 143.5 | 146.7 | 150.3 | 156.2 | 165.2 | 150.0 | 157.6 |
| 448* | 2860.0 | 80.5 | 125 | 296 | 18.3 | 4.0 | 0 | | | | | | 135.4 | 137.6 | 142.0 | 148.0 | 153.6 | 140.6 | 149.1 |
| 449* | 1310.0 | 80.5 | 125 | 296 | 18.3 | 4.0 | 0 | | | | | | 127.7 | 130.3 | 134.4 | 139.2 | 144.3 | 131.6 | 143.5 |
| 450* | 412.0 | 138.8 | 68 | 302 | 12.5 | 3.0 | 2 | 276 | 13.1 | 290 | 9.8 | 13.44 | 167.2 | 179.5 | 190.5 | 199.6 | 211.6 | 183.0 | 181.2 |
| 451 | 410.0 | 158.1 | 60 | 301 | 12.5 | 3.0 | 2 | 280 | 14.3 | 369 | 22.9 | 15.13 | 167.4 | 177.7 | 191.6 | 201.4 | 204.6 | 193.6 | 193.1 |
| 452* | 412.0 | 215.4 | 41 | 303 | 12.5 | 3.0 | 2 | 252 | 17.7 | 229 | 0.3 | 23.72 | 178.4 | 187.7 | 192.1 | 196.0 | 204.8 | 198.4 | 197.8 |
| 453* | 418.0 | 215.4 | 41 | 303 | 12.5 | 3.0 | 2 | 252 | 17.7 | 229 | 0.3 | 23.72 | 172.8 | 182.1 | 192.2 | 201.7 | 209.9 | 198.5 | 197.9 |
| 454* | 418.0 | 215.4 | 41 | 303 | 12.5 | 3.0 | 2 | 252 | 17.7 | 229 | 0.3 | 23.72 | 163.3 | 177.3 | 186.6 | 196.0 | 201.8 | 198.5 | 197.9 |
| 457* | 418.0 | 215.4 | 41 | 303 | 11.9 | 9.1 | 2 | 252 | 17.7 | 208 | 28.0 | 19.63 | 195.0 | 173.6 | 186.3 | 195.8 | 203.8 | 188.8 | 188.5 |
| 458* | 418.0 | 215.4 | 41 | 303 | 11.9 | 50.3 | 2 | 252 | 17.7 | 222 | 42.0 | 18.48 | 162.1 | 176.0 | 187.8 | 196.8 | 201.8 | 187.8 | 187.5 |
| 459* | 418.0 | 215.4 | 41 | 303 | 11.9 | 111.3 | 2 | 252 | 17.7 | 222 | 42.0 | 17.02 | 154.6 | 171.0 | 185.1 | 195.0 | 200.0 | 186.6 | 186.4 |
| 460* | 418.0 | 215.4 | 41 | 303 | 11.9 | 141.7 | 2 | 252 | 17.7 | 222 | 42.0 | 16.30 | 134.8 | 151.1 | 176.5 | 186.1 | 190.1 | 186.1 | 185.8 |
| 461* | 418.0 | 215.4 | 41 | 303 | 11.9 | 172.2 | 2 | 252 | 17.7 | 213 | 60.6 | 15.64 | 156.2 | 174.7 | 184.3 | 194.6 | 200.0 | 185.4 | 185.3 |
| 462* | 418.0 | 215.4 | 41 | 303 | 11.9 | 202.7 | 2 | 252 | 17.7 | 213 | 60.6 | 15.13 | 150.0 | 165.9 | 182.4 | 192.8 | 200.5 | 185.0 | 184.8 |
| 466 | 534.8 | 186.7 | 327 | | | | | 2 | 152 | 39.3 | 173 | 22.1 | 179.3 | 194.9 | 212.2 | | | 191.4 | |
| 467 | 534.8 | 157.7 | 331 | | | | | 2 | 31 | 31.9 | 76 | 14.6 | 174.6 | 184.5 | 196.6 | | | 184.3 | |
| 475 | 9404.0 | 76.4 | 90 | 305 | 18.3 | 4.0 | 1 | 352 | 14.2 | 352 | 62.2 | 1.41 | 152.4 | 154.6 | 159.0 | 172.7 | 174.8 | 162.0 | 183.8 |
| 476 | 2860.0 | 76.4 | 90 | 305 | 18.3 | 4.0 | 1 | 352 | 14.2 | 352 | 62.2 | 1.41 | 137.1 | 139.3 | 142.5 | 150.0 | 150.8 | 151.2 | 164.7 |
| 477 | 1310.0 | 76.4 | 90 | 305 | 18.3 | 4.0 | 1 | 352 | 14.2 | 352 | 62.2 | 1.41 | 134.5 | 136.1 | 140.7 | 150.9 | 151.7 | 144.8 | 154.1 |
| 480* | 915.0 | 402.0 | 334 | 302 | 21.3 | 13.7 | 2 | 293 | 45.0 | 415 | 17.5 | 58.40 | 207.0 | 215.0 | 226.0 | 235.0 | 241.0 | 224.1 | 221.9 |
| 514 | 106.5 | 73.2 | 309 | 173.7 | 2 | 49 | 37.0 | 39 | 8.0 | | | | 127.9 | 132.8 | 136.9 | 140.0 | 143.7 | 132.0 | |
| 515 | 106.5 | 109.4 | 308 | 173.7 | 2 | 91 | 61.1 | 84 | 19.3 | | | | 134.8 | 144.3 | 153.9 | 161.9 | 171.0 | 159.6 | |
| 516 | 106.5 | 299.3 | 306 | 173.7 | 2 | 122 | 61.1 | 152 | 9.7 | | | | 170.7 | 184.1 | 202.3 | | | 183.9 | |
| 519 | 700.0 | 73.2 | 310 | 277.1 | 1 | 39 | 65.2 | 39 | 8.0 | | | | 137.9 | 145.4 | 152.8 | 157.3 | 160.2 | 143.7 | |
| 534 | 47.1 | 73.2 | 309 | 173.7 | 2 | 49 | 37.0 | 39 | 8.0 | | | | 131.2 | 139.2 | 142.1 | 146.4 | 151.1 | 131.1 | |
| 535 | 47.1 | 109.4 | 308 | 173.7 | 2 | 91 | 61.1 | 84 | 19.3 | | | | 141.3 | 147.6 | 154.8 | 162.3 | 169.2 | 153.9 | |
| 536 | 47.1 | 299.3 | 306 | 173.7 | 2 | 122 | 61.1 | 152 | 9.7 | | | | 157.3 | 166.6 | 178.9 | 191.3 | | 179.5 | |
| 564 | 487.8 | 137.0 | 336 | | | | | 2 | 18 | 55.2 | 67 | 15.4 | 149.6 | 166.6 | 184.1 | | | 173.8 | |
| 570 | 505.8 | 158.7 | 323 | | | | | 2 | 360 | 108.6 | 134 | 10.6 | 159.7 | 170.0 | 175.5 | | | 183.7 | |
| 572 | 523.8 | 61.3 | 341 | | | | | 1 | 15 | 45.9 | 15 | 15.4 | 138.2 | 147.6 | 157.6 | | | 139.1 | |
| 576* | 468.0 | 465.7 | 407 | 299 | 15.2 | 17.3 | 2 | 649 | 31.4 | 55 | 7.6 | 69.69 | | 223.9 | 231.0 | 235.8 | 239.9 | 221.4 | 219.2 |
| 577 | 535.8 | 246.7 | 306 | | | | | 2 | 640 | 228.2 | 155 | 1.3 | 176.1 | 182.8 | 190.6 | | | 217.7 | |
| 578 | 673.8 | 219.3 | 303 | | | | | 2 | 470 | 200.2 | 469 | 18.4 | 182.8 | 188.3 | 194.4 | | | 159.2 | |
| 581 | 583.8 | 61.5 | 308 | | | | | 2 | 549 | 40.3 | 280 | 3.6 | 181.6 | 185.7 | 192.1 | | | 196.3 | |
| 583 | 595.8 | 238.0 | | | | | | | | | | | | | | | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | H | HLT M | DLT KM | HLR M | DLR KM | THETA MR | LB OBSERVED | | | | TN LBCR | 101 LBCR | ESSA 70 LBCR |
|----------|--------|--------|------|-----|-------|-------|---|-------|--------|-------|--------|----------|-------------|-------|-------|-------|---------|----------|--------------|
| | | | | | | | | | | | | | 1% | 10% | 50% | 90% | | | |
| 856 | 900.0 | 103.9 | | 304 | | | 2 | 430 | 76.6 | 430 | 27.2 | | 150.5 | 151.7 | 153.3 | 155.0 | 156.6 | 169.0 | |
| 857 | 900.0 | 292.2 | | 268 | 14.0 | 14.0 | 2 | 1038 | 56.3 | 2022 | 14.5 | | 176.0 | 187.5 | 199.0 | 207.0 | 212.0 | 202.5 | |
| 858 | 905.0 | 208.8 | | 242 | | | 2 | 2134 | 14.7 | 2570 | 14.7 | | 153.2 | 173.4 | 201.0 | 209.7 | 216.6 | 206.1 | |
| 859 | 905.0 | 183.5 | | 244 | 14.0 | 14.0 | 2 | 2416 | 14.7 | 2125 | 14.7 | | 144.2 | 177.7 | 200.2 | 214.2 | 219.5 | 203.1 | |
| 860 | 910.0 | 339.2 | | 256 | | | 2 | 1196 | 150.8 | 2579 | 14.5 | | 200.2 | 205.3 | 212.7 | 220.3 | 224.3 | 213.9 | |
| 861 | 910.0 | 312.2 | | 259 | 14.0 | 14.0 | 2 | 1097 | 140.0 | 2425 | 14.5 | | 193.4 | 198.3 | 208.1 | 218.6 | 221.7 | 212.1 | |
| 862 | 1046.0 | 650.3 | 0 | 307 | 7.0 | 7.0 | 2 | 0 | 84.6 | 456 | 5.5 | 90.11 | 228.3 | 231.8 | 237.1 | 240.5 | 245.1 | 243.2 | |
| 863 | 38.0 | 257.5 | | 274 | 15.2 | 15.2 | 2 | 2499 | 131.2 | 1829 | 82.1 | | | | 149.0 | | 194.2 | | |
| 864 | 412.9 | 1112.1 | 0 | 313 | 7.9 | 8.2 | 2 | 0 | 118.3 | 0 | 111.5 | 113.27 | 255.7 | 259.7 | 261.1 | 262.2 | 263.3 | 249.8 | |
| 900* | 412.9 | 996.3 | 99 | 327 | 19.2 | 16.2 | 2 | 0 | 24.6 | 280 | 16.9 | 122.31 | 222.7 | 247.1 | 256.7 | 260.9 | 265.0 | 250.9 | |
| 903* | 417.0 | 302.3 | 22 | 312 | 98.9 | 22.9 | 2 | 0 | 44.4 | 2 | 49.0 | 24.26 | 142.2 | 176.8 | 194.1 | 202.3 | 210.1 | 192.7 | |
| 904* | 2290.0 | 302.3 | 22 | 312 | 98.9 | 22.9 | 2 | 0 | 44.4 | 2 | 49.0 | 24.26 | 165.0 | 196.2 | 194.5 | 223.2 | 228.3 | 216.0 | |
| 907 | 399.5 | 297.9 | 12 | 311 | 8.5 | 2.7 | 2 | 34 | 7.0 | 11 | 5.6 | 30.85 | | 168.0 | 196.0 | 208.0 | 215.0 | 197.1 | |
| 908 | 3670.0 | 302.3 | 22 | 312 | 9.1 | 2.7 | 2 | 2 | 49.0 | 11 | 5.6 | 28.17 | | | 231.5 | | | 225.0 | |
| 909 | 400.0 | 302.3 | 22 | 312 | 9.1 | 2.7 | 2 | 2 | 49.0 | 11 | 5.6 | 28.17 | | | 205.0 | | | 195.8 | |
| 917* | 385.5 | 297.9 | 12 | 311 | 2.7 | 8.5 | 2 | 11 | 5.6 | 34 | 7.0 | 30.85 | 193.0 | 198.0 | 207.0 | 216.0 | 220.0 | 196.6 | |
| 1026 | 3710.0 | 128.7 | | 310 | 100.6 | 120.4 | 2 | 34 | 37.7 | 41 | 32.8 | | | 177.4 | 207.6 | 223.7 | | 198.0 | |
| 1123* | 460.0 | 275.1 | 179 | 298 | 9.2 | 9.7 | 2 | 579 | 55.0 | 274 | 58.5 | 28.67 | | 189.5 | 196.0 | 206.5 | | 197.5 | |
| 1124A* | 4110.0 | 275.1 | 179 | 298 | 9.2 | 9.7 | 2 | 579 | 55.0 | 274 | 58.5 | 28.67 | | 218.0 | 226.5 | 234.5 | | 227.4 | |
| 1124B* | 4110.0 | 275.1 | 179 | 298 | 9.2 | 9.7 | 2 | 579 | 55.0 | 274 | 58.5 | 28.67 | | 216.1 | 224.9 | 236.6 | | 227.4 | |
| 1125 | 800.0 | 262.0 | 0 | 352 | 8.2 | 4.0 | 2 | 0 | 86.7 | 0 | 23.0 | 21.08 | 163.0 | 184.9 | 193.3 | 198.4 | 201.7 | 195.7 | |
| 1126 | 800.0 | 296.0 | 0 | 351 | 8.2 | 10.1 | 2 | 0 | 27.0 | 0 | 56.5 | 25.01 | 185.4 | 190.6 | 194.5 | 197.1 | | 198.2 | |
| 1127 | 800.0 | 296.0 | 0 | 352 | 8.2 | 10.1 | 2 | 0 | 27.0 | 0 | 30.1 | 26.87 | 165.7 | 184.7 | 194.5 | 201.4 | 209.4 | 199.5 | |
| 1128 | 800.0 | 291.0 | 0 | 351 | 8.2 | 17.4 | 2 | 0 | 27.0 | 0 | 59.5 | 24.27 | 184.1 | 190.3 | 193.7 | 197.2 | | 197.9 | |
| 1129 | 800.0 | 333.0 | 10 | 350 | 8.2 | 17.4 | 2 | 0 | 27.0 | 91 | 8.0 | 32.60 | 182.4 | 195.6 | 202.0 | 207.9 | 214.0 | 204.6 | |
| 1130 | 800.0 | 291.0 | 0 | 351 | 8.2 | 4.6 | 2 | 0 | 27.0 | 0 | 54.1 | 24.67 | 168.7 | 189.2 | 195.1 | 198.9 | 203.3 | 198.1 | |
| 1131 | 800.0 | 298.1 | 0 | 350 | | | 2 | 0 | 19.0 | 0 | 14.3 | 28.19 | 170.8 | 188.8 | 195.8 | 202.8 | 208.8 | 198.5 | |
| 1132 | 880.0 | 298.0 | 0 | 350 | | | 2 | 0 | 32.3 | 0 | 13.8 | 26.55 | 156.0 | 182.0 | 193.0 | 201.0 | 208.0 | 201.6 | |
| 1303 | 954.3 | 187.1 | 98 | 317 | 7.6 | 12.2 | 2 | 160 | 33.3 | 0 | 96.0 | 0.57 | | 145.5 | 156.5 | 164.5 | 170.0 | 151.6 | |
| 1304 | 1908.5 | 187.1 | 98 | 317 | 10.7 | 12.2 | 2 | 160 | 33.3 | 0 | 96.0 | 0.48 | 138.3 | 148.6 | 168.7 | 173.7 | 183.5 | 158.0 | |
| 1313 | 158.8 | 60.3 | | 322 | | | 1 | 88 | 31.3 | 88 | 29.0 | | 123.5 | 125.9 | 128.9 | 130.1 | | 134.2 | |
| 1355 | 891.0 | 175.3 | 0 | 336 | 6.0 | 12.0 | 2 | 0 | 49.0 | 0 | 16.0 | 12.06 | 141.0 | 155.0 | 167.0 | 197.0 | 200.0 | 188.7 | |
| 1376 | 102.0 | 330.0 | 0 | 332 | | | 2 | 0 | 13.5 | 0 | 19.0 | 33.15 | | 159.8 | 173.3 | 185.4 | 193.7 | 188.6 | |
| 1377 | 432.0 | 323.5 | 0 | 332 | | | 2 | 0 | 13.5 | 0 | 19.0 | 32.43 | | 166.3 | 193.5 | 213.8 | | 199.5 | |
| 1388 | 134.0 | 150.0 | 100 | 359 | 2.0 | 60.0 | 2 | 825 | 41.0 | 275 | 7.5 | 23.99 | | | 152.5 | | | 173.3 | |
| 1396 | 170.0 | 128.0 | | 307 | 18.0 | 18.0 | 2 | 820 | 92.0 | 750 | 24.0 | | 163.8 | 169.4 | 174.4 | 177.6 | 180.2 | 184.1 | |
| 1397 | 432.0 | 150.0 | 100 | 359 | 2.0 | 60.0 | 2 | 825 | 41.0 | 275 | 7.5 | 23.99 | | | 170.6 | | | 185.4 | |
| 1398 | 432.0 | 200.0 | 50 | 362 | 2.0 | 15.2 | 2 | 950 | 8.3 | 13 | 21.0 | 11.09 | | 186.7 | 191.1 | 195.1 | 198.0 | 179.9 | |
| 1399 | 134.0 | 200.0 | 50 | 362 | 2.0 | 15.2 | 2 | 950 | 8.3 | 13 | 21.0 | 11.09 | | 164.0 | 168.5 | 173.0 | 176.8 | 172.2 | |
| 1400 | 49.0 | 80.9 | 59 | 305 | 21.3 | 7.3 | 2 | 107 | 19.6 | 145 | 27.8 | 7.52 | | | 167.6 | | | 152.8 | |
| 1401 | 90.7 | 80.9 | 59 | 305 | 18.3 | 7.3 | 2 | 107 | 19.6 | 145 | 27.8 | 7.67 | | | 153.6 | | | 157.6 | |
| 1402 | 173.1 | 80.9 | 59 | 305 | 18.3 | 7.3 | 2 | 107 | 19.6 | 145 | 27.8 | 7.67 | | | 161.2 | | | 163.3 | |
| 1403 | 492.0 | 80.9 | 59 | 305 | 18.3 | 7.3 | 2 | 107 | 19.6 | 145 | 27.8 | 7.67 | | | 178.4 | | | 174.2 | |
| 1404 | 49.0 | 144.7 | 52 | 304 | 21.3 | 7.3 | 2 | 107 | 19.8 | 226 | 2.3 | 41.11 | | | 191.2 | | | 183.4 | |
| 1405 | 90.7 | 144.7 | 52 | 304 | 18.3 | 7.3 | 2 | 107 | 19.8 | 226 | 2.3 | 41.26 | | | 170.7 | | | 186.1 | |
| 1406 | 173.1 | 144.7 | 52 | 304 | 18.3 | 7.3 | 2 | 107 | 19.8 | 226 | 2.3 | 41.26 | | | 193.8 | | | 190.0 | |
| 1407 | 492.0 | 144.7 | 52 | 304 | 18.3 | 7.3 | 2 | 107 | 19.8 | 226 | 2.3 | 41.26 | | | 203.6 | | | 199.7 | |
| 1408 | 49.0 | 242.5 | 96 | 303 | 21.3 | 7.3 | 2 | 102 | 19.8 | 291 | 13.8 | 30.28 | | | 188.0 | | | 186.9 | |
| 1409 | 90.7 | 242.5 | 96 | 303 | 18.3 | 7.3 | 2 | 102 | 19.8 | 291 | 13.8 | 30.43 | | | 182.4 | | | 188.4 | |
| 1410 | 173.1 | 242.5 | 96 | 303 | 18.3 | 7.3 | 2 | 102 | 19.8 | 291 | 13.8 | 30.43 | | | 202.2 | | | 191.1 | |
| 1411 | 492.0 | 242.5 | 96 | 303 | 18.3 | 7.3 | 2 | 102 | 19.8 | 291 | 13.8 | 30.43 | | | 215.1 | | | 199.9 | |
| 1412 | 49.0 | 322.6 | 96 | 302 | 21.3 | 7.3 | 2 | 102 | 19.8 | 352 | 4.4 | 48.08 | | | 204.9 | | | 195.2 | |
| 1413 | 90.7 | 322.6 | 96 | 302 | 18.3 | 7.3 | 2 | 102 | 19.8 | 352 | 4.4 | 48.23 | | | 195.8 | | | 196.8 | |
| 1414 | 173.1 | 322.6 | 96 | 302 | 18.3 | 7.3 | 2 | 102 | 19.8 | 352 | 4.4 | 48.23 | | | 210.3 | | | 200.1 | |
| 1416 | 49.0 | 376.2 | 124 | 303 | 21.3 | 7.3 | 2 | 107 | 19.6 | 271 | 0.3 | 80.99 | | | 210.8 | | | 205.0 | |
| 1417 | 90.7 | 376.2 | 124 | 303 | 18.3 | 7.3 | 2 | 107 | 19.6 | 271 | 0.3 | 81.15 | | | 215.9 | | | 207.1 | |
| 1437* | 45.9 | 303.4 | 172 | 301 | 18.3 | 18.3 | 2 | 401 | 12.7 | 110 | 16.1 | 37.81 | 180.3 | 185.5 | 191.4 | 196.4 | 200.5 | 184.1 | |
| 1438* | 2720.0 | 345.7 | 185 | 306 | 25.9 | 9.1 | 2 | 114 | 23.7 | 290 | 63.2 | 38.21 | 216.4 | 220.4 | 230.9 | 239.4 | | 228.4 | |
| 1439* | 2720.0 | 345.7 | 185 | 306 | 25.9 | 9.1 | 2 | 114 | 23.7 | 290 | 63.2 | 38.08 | 215.9 | 220.9 | 225.9 | 230.9 | | 228.4 | |
| 1440* | 505.0 | 277.1 | 50 | 312 | 5.2 | 5.2 | 2 | 0 | 44.4 | 76 | 35.5 | 22.74 | 180.3 | 189.3 | 202.3 | 213.3 | 223.3 | 193.7 | |
| 1441* | 4090.0 | 277.1 | 50 | 312 | 5.2 | 5.2 | 2 | 0 | 44.4 | 76 | 35.5 | 22.74 | 214.5 | 227.5 | 237.5 | 246.5 | 253.5 | 222.4 | |
| 1442* | 505.0 | 470.1 | 107 | 320 | 5.2 | 14.3 | 2 | 0 | 44.7 | 183 | 26.4 | 49.97 | 185.0 | 204.0 | 213.0 | 221.0 | 228.0 | 213.3 | |
| 1536* | 4600.0 | 404.1 | 1818 | 330 | 7.0 | 7.0 | 2 | 3956 | 148.2 | 3956 | 255.9 | 50.47 | 211.8 | 218.0 | 224.0 | 229.6 | 234.7 | 209.4 | |
| 1537* | 4459.0 | 183.2 | 115 | 320 | 8.0 | 7.0 | 2 | 0 | 135.2 | 0 | 11.9 | 4.10 | 183.0 | 188.0 | 196.0 | 207.0 | 213.0 | 196.8 | |
| 1550 | 100.0 | 316.2 | 150 | 308 | 15.2 | 15.2 | 2 | 85 | 47.5 | 230 | 24.5 | 39.19 | 185.8 | 190.8 | 194.0 | 197.3 | 199.0 | 197.2 | |
| 1551 | 100.0 | 316.2 | 150 | 308 | 15.2 | 30.5 | 2 | 85 | 47.5 | 230 | 24.5 | 38.57 | 183.0 | 188.3 | 192.5 | 197.4 | 202.1 | 187.0 | |
| 1552 | 1046.0 | 316.2 | 150 | 308 | 7.9 | 7.9 | 2 | 8 | 12.1 | 130 | 5.5 | 40.48 | 212.0 | 218.5 | 221.1 | 227.0 | 230.0 | 214.7 | |
| 1553 | 100.0 | 326.2 | 150 | 308 | 15.2 | 15.2 | 2 | 171 | 70.3 | 601 | 61.2 | 40.14 | 177.7 | 180.7 | 185.8 | 219.9 | 231.1 | 190.0 | |
| 1554 | 100.0 | 326.2 | 150 | 308 | 15.2 | 30.5 | 2 | 171 | 70.3 | 601 | 61.2 | 39.89 | 173.4 | 177.0 | 182.4 | 192.8 | 202.1 | 188.3 | |
| 1555 | 1046.0 | 326.2 | 150 | 308 | 7.9 | 7.9 | 2 | 171 | 70.3 | 601 | 61.2 | 40.37 | 203.2 | 206.9 | 212.5 | 219.9 | 231.1 | 213.8 | |
| 1556 | 100.0 | 326.2 | 150 | 308 | 42.7 | 15.2 | 2 | 171 | 70.3 | 601 | 61.2 | 39.71 | | 180.4 | 183.5 | 189.8 | | 186.9 | |
| 1557 | 100.0 | 326.2 | 150 | 308 | 42.7 | 30.5 | 2 | 171 | 70.3 | 601 | 61.2 | 39.46 | | 176.5 | 180.5 | 187.0 | | 184.0 | |
| 1558 | 100.0 | 314.8 | 55 | 308 | 15.2 | 9.1 | 2 | 90 | 46.2 | 165 | 38.8 | 36.81 | | 186.7 | 189.8 | 193.5 | | 191.9 | |
| 1559 | 100.0 | 326.2 | 120 | 308 | 15.2 | 9.1 | 2 | 200 | 67.0 | 175 | 36.7 | 38.14 | | 177.5 | 183.9 | 190.5 | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | H | HLT M | DLT KM | HLR M | DLR KM | THETA MR | LB OBSERVED | | | | | TN 101 LBCR | ESSA 70 LBCR |
|----------|--------|--------|------|-----|-------|-------|---|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|-------------|--------------|
| | | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | |
| 1582 | 1965.0 | 209.0 | | 317 | | | 2 | 970 | 39.0 | 1590 | 148.0 | | 191.5 | 195.5 | 200.3 | 208.4 | 231.5 | 195.7 | |
| 1583 | 1965.0 | 227.0 | | 314 | | | 1 | 1700 | 74.0 | 1700 | 153.0 | | 184.8 | 189.2 | 194.7 | 200.9 | 205.0 | 190.4 | |
| 1584 | 1965.0 | 385.0 | | 286 | | | 1 | 1650 | 170.0 | 1650 | 215.0 | | 200.6 | 205.4 | 210.6 | 215.8 | 221.7 | 195.1 | |
| 1585 | 1964.0 | 388.0 | | 299 | | | 1 | 700 | 228.0 | 700 | 160.0 | | 172.5 | 182.8 | 193.7 | 202.7 | 208.7 | 188.1 | |
| 1586 | 1965.0 | 449.0 | | 315 | | | 2 | 400 | 80.0 | 0 | 58.0 | | 154.1 | 165.0 | 180.5 | 210.9 | 219.8 | 220.7 | |
| 1587 | 1965.0 | 554.0 | | 315 | | | 2 | 400 | 80.0 | 0 | 155.0 | | 173.3 | 186.5 | 206.8 | 231.2 | 240.3 | 222.5 | |
| 1588 | 872.0 | 520.0 | | 284 | | | 2 | 931 | 6.0 | 1740 | 271.0 | | 206.0 | 215.0 | 224.0 | | | 224.5 | |
| 1589 | 872.0 | 629.0 | 0 | 322 | | | 2 | 0 | 176.0 | 0 | 13.0 | 51.88 | 214.0 | 220.2 | 231.9 | | | 224.7 | 224.0 |
| 1590 | 1965.0 | 626.0 | 0 | 322 | | | 2 | 0 | 176.0 | 0 | 13.0 | 51.54 | 178.1 | 194.5 | 225.4 | | | 235.7 | 233.7 |
| 1592 | 860.0 | 429.8 | | 268 | | | 2 | 2000 | 97.4 | 1250 | 14.5 | | | | 245.0 | | | 237.6 | |
| 1593 | 1760.0 | 225.0 | 0 | 320 | | | 2 | 0 | 96.5 | 0 | 112.8 | 1.79 | 142.4 | 147.0 | 158.5 | 172.2 | 184.7 | 172.3 | 171.3 |
| 1594* | 1760.0 | 212.0 | 50 | 294 | 90.0 | 4.0 | 0 | 0 | 0 | 0 | 0 | | 130.1 | 136.8 | 146.2 | 154.7 | 167.8 | 143.9 | 160.3 |
| 1595 | 400.0 | 136.0 | | 320 | | | 1 | 1640 | 132.0 | 1640 | 4.0 | | | 143.2 | 149.6 | 155.4 | 158.5 | 150.4 | |
| 1596 | 180.0 | 237.0 | 0 | 304 | | | 2 | 0 | 96.1 | 0 | 105.3 | 6.05 | 136.6 | 144.9 | 161.6 | 171.5 | 186.8 | 155.3 | 160.7 |
| 1597 | 411.0 | 142.0 | 0 | 309 | | | 2 | 0 | 45.2 | 0 | 96.7 | -0.10 | 132.4 | 135.7 | 139.6 | 144.7 | 155.9 | 141.3 | 140.4 |
| 1600 | 2780.0 | 149.7 | 300 | 294 | 7.6 | 7.6 | 2 | 610 | 69.2 | 518 | 30.6 | 17.37 | 205.4 | 217.8 | 221.8 | 224.8 | 226.8 | 210.8 | 210.5 |
| 1601 | 9150.0 | 149.7 | 300 | 294 | 6.1 | 6.1 | 2 | 610 | 69.2 | 518 | 30.6 | 17.44 | 224.3 | 228.3 | 234.3 | 238.3 | 241.3 | 226.9 | 225.2 |
| 1602 | 2780.0 | 191.5 | 200 | 296 | 7.6 | 7.6 | 2 | 518 | 46.7 | 457 | 28.2 | 28.49 | 210.1 | 213.6 | 219.1 | 223.1 | 225.1 | 219.3 | 218.2 |
| 1603 | 9150.0 | 191.5 | 200 | 296 | 6.1 | 6.1 | 2 | 518 | 46.7 | 457 | 28.2 | 28.57 | 228.5 | 231.8 | 236.8 | 241.8 | 245.8 | 235.7 | 233.4 |
| 1604 | 9150.0 | 96.6 | 340 | 298 | 6.1 | 6.1 | 2 | 457 | 61.2 | 366 | 1.6 | 25.13 | 225.2 | 233.2 | 239.2 | 245.2 | 247.2 | 228.6 | 227.6 |
| 1605 | 2780.0 | 107.2 | 123 | 304 | 7.6 | 7.6 | 2 | 457 | 61.2 | 366 | 1.6 | 24.17 | 213.8 | 217.8 | 222.8 | 228.8 | 233.8 | 212.2 | 212.3 |
| 1606* | 840.0 | 107.2 | 123 | 304 | 12.2 | 7.6 | 2 | 235 | 37.1 | 335 | 3.8 | 8.84 | | 159.6 | 182.6 | 192.6 | | 185.2 | 179.8 |
| 1609* | 2800.0 | 107.2 | 123 | 304 | 12.2 | 7.6 | 2 | 235 | 37.1 | 335 | 3.8 | 8.84 | | 179.1 | 194.6 | 203.6 | | 199.0 | 199.0 |
| 1610* | 9100.0 | 107.2 | 123 | 304 | 14.9 | 4.9 | 2 | 235 | 37.1 | 335 | 3.8 | 9.47 | | 191.1 | 207.1 | 219.3 | | 215.3 | 214.3 |
| 1700* | 950.0 | 226.4 | 399 | 260 | 4.6 | 3.0 | 2 | 496 | 18.1 | 1487 | 40.2 | 26.86 | 192.3 | 197.3 | 203.6 | 212.6 | 220.1 | 209.9 | 208.7 |
| 1701* | 880.0 | 225.4 | 399 | 260 | 3.0 | 4.6 | 2 | 1487 | 40.2 | 496 | 18.1 | 26.86 | 191.1 | 197.1 | 204.4 | 213.1 | 218.5 | 209.0 | 207.9 |
| 1702* | 880.0 | 167.8 | 334 | 259 | 3.0 | 3.0 | 2 | 1744 | 46.9 | 991 | 56.3 | 26.83 | 180.7 | 198.6 | 205.2 | 210.8 | 214.3 | 207.9 | 211.7 |
| 1703* | 950.0 | 167.8 | 334 | 259 | 3.0 | 3.0 | 2 | 991 | 56.3 | 1744 | 46.9 | 26.83 | 189.6 | 198.4 | 205.3 | 212.8 | 218.5 | 208.4 | 212.7 |
| 1704A* | 810.0 | 554.0 | 785 | 240 | 9.1 | 21.3 | 2 | 1570 | 37.0 | 1923 | 13.5 | 80.14 | 244.2 | 247.5 | 251.0 | 254.0 | 256.2 | 237.4 | 234.3 |
| 1704B* | 810.0 | 554.0 | 785 | 240 | 9.1 | 21.3 | 2 | 1570 | 37.0 | 1923 | 13.5 | 80.14 | 241.7 | 245.3 | 248.4 | 251.4 | 253.4 | 237.4 | 234.3 |
| 1704C* | 810.0 | 554.0 | 785 | 240 | 9.1 | 21.3 | 2 | 1570 | 37.0 | 1923 | 13.5 | 80.14 | 239.6 | 244.5 | 248.5 | 252.1 | 254.7 | 237.4 | 234.3 |
| 1705A* | 810.0 | 554.0 | 785 | 240 | 9.1 | 21.3 | 2 | 1570 | 37.0 | 1923 | 13.5 | 80.14 | 242.9 | 244.8 | 248.5 | 252.0 | 254.3 | 237.4 | 234.3 |
| 1705B* | 810.0 | 554.0 | 785 | 240 | 9.1 | 21.3 | 2 | 1570 | 37.0 | 1923 | 13.5 | 80.14 | 243.2 | 247.1 | 250.8 | 254.6 | 257.3 | 237.4 | 234.3 |
| 1705C* | 810.0 | 554.0 | 785 | 240 | 9.1 | 21.3 | 2 | 1570 | 37.0 | 1923 | 13.5 | 80.14 | 241.1 | 247.7 | 251.0 | 254.0 | 258.2 | 237.4 | 234.3 |
| 1708* | 810.0 | 635.8 | 827 | 255 | 9.1 | 3.0 | 2 | 1661 | 36.2 | 1798 | 62.3 | 92.98 | 246.0 | 249.0 | 252.4 | 255.8 | 258.7 | 244.5 | 241.5 |
| 1709* | 810.0 | 635.8 | 827 | 255 | 9.1 | 3.0 | 2 | 1661 | 36.2 | 1798 | 62.3 | 92.98 | 240.2 | 246.2 | 250.8 | 254.8 | 259.2 | 244.5 | 241.5 |
| 1710* | 810.0 | 635.8 | 827 | 255 | 9.1 | 3.0 | 2 | 1661 | 36.2 | 1798 | 62.3 | 92.98 | 246.3 | 249.1 | 252.5 | 256.0 | 259.2 | 244.5 | 241.5 |
| 1711* | 810.0 | 635.8 | 827 | 255 | 9.1 | 3.0 | 2 | 1661 | 36.2 | 1798 | 62.3 | 92.98 | 245.2 | 248.8 | 252.4 | 256.1 | 259.1 | 244.5 | 241.5 |
| 1712* | 2345.0 | 167.8 | 334 | 259 | 3.0 | 3.0 | 2 | 991 | 56.3 | 1744 | 46.9 | 26.83 | 207.4 | 218.8 | 230.0 | 239.5 | | 218.7 | 224.5 |
| 1713* | 1705.0 | 167.8 | 334 | 259 | 3.0 | 3.0 | 2 | 1744 | 46.9 | 991 | 56.3 | 26.83 | 197.5 | 205.0 | 214.2 | 223.7 | | 215.1 | 220.3 |
| 1715* | 880.0 | 145.9 | 276 | 253 | 22.9 | 18.3 | 2 | 1593 | 13.9 | 1021 | 30.9 | 31.61 | 181.8 | 188.9 | 195.8 | 201.8 | | 207.4 | 206.9 |
| 1716* | 810.0 | 373.2 | 235 | 271 | 5.8 | 3.0 | 2 | 1087 | 60.5 | 207 | 29.7 | 41.38 | 206.8 | 211.4 | 218.7 | 225.9 | 232.1 | 219.4 | 217.9 |
| 1717* | 810.0 | 455.1 | 1050 | 238 | 5.8 | 7.3 | 2 | 1615 | 26.3 | 2499 | 109.6 | 72.51 | 228.0 | 233.0 | 240.0 | 246.9 | | 232.5 | 230.4 |
| 1800* | 455.0 | 27.5 | 53 | 330 | 30.5 | 39.6 | 0 | | | | | | 114.3 | 118.6 | 122.8 | 126.4 | 131.6 | 123.2 | 124.4 |
| 1801* | 952.0 | 27.5 | 53 | 330 | 29.3 | 38.1 | 0 | | | | | | 119.9 | 127.7 | 135.8 | 139.3 | 142.1 | 135.6 | 129.7 |
| 1804 | 417.0 | 1028.4 | 211 | 301 | 22.9 | 22.9 | 2 | 145 | 6.8 | 488 | 99.5 | 132.12 | 245.2 | 247.6 | 252.7 | 261.2 | 270.1 | 254.1 | 250.0 |
| 1805* | 960.0 | 430.5 | 245 | 301 | 1.5 | 24.4 | 2 | 392 | 11.9 | 201 | 5.0 | 81.83 | 238.0 | 248.7 | 252.0 | | | 237.4 | 234.5 |
| 1903 | 9365.0 | 305.8 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 29.76 | | | 218.2 | | | 238.8 | 235.6 |
| 1904 | 9365.0 | 305.8 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 29.76 | | | 231.5 | | | 238.8 | 235.6 |
| 1905 | 3406.0 | 305.8 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 29.76 | | | 210.0 | | | 224.2 | 222.4 |
| 1906 | 1365.0 | 305.8 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 29.76 | | | 210.0 | | | 211.6 | 210.6 |
| 1907 | 1250.0 | 305.8 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 29.76 | | | 194.9 | | | 210.5 | 209.5 |
| 1908 | 9365.0 | 231.7 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 21.36 | | | 226.9 | | | 231.1 | 228.5 |
| 1909 | 1365.0 | 231.7 | 0 | 320 | | | 2 | 0 | 15.6 | 0 | 27.7 | 21.36 | | | 207.6 | | | 204.9 | 203.9 |
| 1978* | 573.3 | 61.9 | 53 | 315 | 194.0 | 11.0 | 0 | | | | | | 153.0 | 154.0 | 155.0 | | | 129.6 | 134.9 |
| 1979* | 573.3 | 77.8 | 92 | 314 | 194.0 | 9.1 | 2 | 201 | 55.5 | 198 | 19.3 | 4.61 | 144.0 | 147.5 | 149.5 | | | 141.6 | 141.6 |
| 1980* | 573.3 | 97.8 | 71 | 319 | 194.0 | 9.1 | 2 | 76 | 57.0 | 49 | 24.8 | 2.96 | 141.5 | 156.0 | 162.0 | | | 160.7 | 162.4 |
| 1981* | 573.3 | 120.9 | 55 | 319 | 194.0 | 13.0 | 2 | 91 | 40.4 | 15 | 7.4 | 5.69 | 173.5 | 192.5 | | | | 176.2 | 175.7 |
| 1982* | 573.3 | 122.2 | 88 | 317 | 194.0 | 9.1 | 2 | 127 | 57.2 | 61 | 7.6 | 7.00 | 163.5 | 179.0 | 187.0 | | | 179.8 | 179.3 |
| 1983* | 573.3 | 147.7 | 63 | 318 | 194.0 | 9.1 | 2 | 88 | 54.0 | 64 | 26.5 | 8.15 | 156.5 | 177.5 | 189.5 | | | 178.8 | 178.4 |
| 1984* | 495.0 | 100.7 | 92 | 313 | 225.5 | 9.1 | 1 | 216 | 60.3 | 216 | 40.4 | 4.05 | 136.8 | 143.8 | 148.3 | | | 150.4 | 150.4 |
| 1985* | 629.3 | 144.5 | 84 | 316 | 225.5 | 10.0 | 2 | 183 | 60.8 | 127 | 6.9 | 13.58 | 168.4 | 178.9 | 183.9 | | | 188.1 | 187.3 |
| 1986* | 629.3 | 149.1 | 81 | 315 | 225.5 | 12.0 | 2 | 168 | 58.1 | 183 | 25.3 | 10.10 | 158.9 | 170.9 | 182.9 | | | 183.0 | 182.3 |
| 1987* | 560.0 | 203.2 | 0 | 318 | 47.2 | 9.1 | 2 | 0 | 32.6 | 0 | 20.7 | 17.07 | 131.8 | 161.3 | | | | 189.2 | 189.0 |
| 1988* | 560.0 | 218.4 | 17 | 317 | 47.2 | 9.1 | 2 | 0 | 32.6 | 41 | 13.7 | 18.07 | 158.8 | 183.3 | | | | 189.9 | 189.9 |
| 1989* | 560.0 | 259.3 | 31 | 317 | 47.2 | 9.1 | 2 | 0 | 32.6 | 34 | 10.1 | 26.24 | 172.3 | 188.8 | | | | 198.1 | 197.5 |
| 1990* | 560.0 | 317.8 | 37 | 318 | 47.2 | 9.1 | 2 | 0 | 32.6 | 2 | 30.3 | 28.64 | 165.8 | 190.3 | | | | 199.2 | 198.7 |
| 1991* | 560.0 | 357.5 | 54 | 314 | 47.2 | 9.1 | 2 | 0 | 32.5 | 178 | 9.4 | 32.54 | 163.8 | 191.3 | | | | 203.5 | 202.3 |
| 1992 | 3260.0 | 92.0 | 0 | 316 | | | 0 | | | | | | 161.6 | 165.6 | 175.6 | | | 138.5 | 155.1 |
| 1993 | 3260.0 | 92.0 | 0 | 323 | | | 2 | 0 | 54.0 | 0 | 22.3 | 1.77 | 171.6 | 186.6 | 198.6 | | | 173.3 | 174.6 |
| 1994 | 3260.0 | | | | | | | | | | | | | | | | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | H | HLT M | DLT KM | HLR M | DLR KM | THETA MR | 1% | 10% | LB OBSERVED 50% | 90% | 99% | TN LBCR | 101 LBCR | ESSA 70 LBCR |
|----------|--------|-------|------|-----|-------|-------|---|-------|--------|-------|--------|----------|-------|-------|-----------------|-------|-------|---------|----------|--------------|
| 2004 | 91.5 | 398.4 | 165 | 311 | 161.5 | 9.1 | 2 | 503 | 12.9 | 168 | 17.1 | 48.32 | 164.6 | | | | | | 187.9 | 187.7 |
| 2005 | 91.5 | 320.6 | 222 | 311 | 161.5 | 9.1 | 2 | 555 | 10.9 | 46 | 0.7 | 78.49 | 185.6 | | | | | | 199.8 | 200.7 |
| 2006 | 91.5 | 303.8 | 238 | 310 | 161.5 | 9.1 | 2 | 579 | 10.9 | 107 | 19.1 | 45.95 | 161.6 | 170.6 | | | | | 190.9 | 190.3 |
| 2007 | 91.5 | 216.8 | 217 | 308 | 161.5 | 18.3 | 2 | 622 | 19.5 | 149 | 24.6 | 31.29 | 144.6 | 148.6 | | | | | 179.2 | 178.3 |
| 2008 | 91.5 | 285.0 | 188 | 309 | 161.5 | 9.1 | 2 | 494 | 17.9 | 221 | 65.0 | 28.75 | 159.6 | 170.6 | | | | | 175.4 | 175.4 |
| 2009 | 91.5 | 213.1 | 143 | 314 | 161.5 | 9.1 | 2 | 366 | 28.6 | 21 | 8.7 | 17.04 | 153.6 | 164.6 | | | | | 174.1 | 174.2 |
| 2010 | 91.5 | 277.7 | 155 | 313 | 161.5 | 10.7 | 2 | 297 | 27.2 | 128 | 43.1 | 22.55 | 159.6 | 169.6 | | | | | 178.9 | 180.1 |
| 2011* | 92.0 | 212.0 | 103 | 315 | 123.7 | 9.1 | 2 | 134 | 74.0 | 171 | 26.2 | 16.54 | 145.2 | 157.7 | 170.7 | | | | 165.5 | 166.2 |
| 2012* | 92.0 | 324.0 | 99 | 315 | 123.7 | 9.1 | 2 | 143 | 78.1 | 183 | 1.5 | 43.09 | 155.7 | 167.7 | 178.2 | | | | 184.7 | 186.4 |
| 2013 | 92.0 | 587.8 | 196 | 311 | 123.7 | 9.1 | 2 | 143 | 74.2 | 415 | 50.5 | 66.94 | 186.7 | 196.2 | | | | | 200.4 | 199.5 |
| 2014 | 92.0 | 679.5 | 102 | 317 | 123.7 | 9.1 | 2 | 131 | 72.3 | 96 | 3.6 | 74.97 | 189.2 | 205.2 | | | | | 213.0 | 212.1 |
| 2015* | 92.0 | 409.8 | 157 | 316 | 123.7 | 9.1 | 2 | 229 | 23.8 | 140 | 7.2 | 49.15 | 174.7 | 184.2 | 193.7 | | | | 194.4 | 195.7 |
| 2016* | 92.0 | 409.5 | 159 | 315 | 123.7 | 9.1 | 2 | 180 | 47.8 | 213 | 2.9 | 49.74 | 167.2 | 177.2 | 189.2 | | | | 189.6 | 190.5 |
| 2017* | 92.0 | 434.7 | 109 | 314 | 123.7 | 9.1 | 2 | 159 | 80.0 | 213 | 14.2 | 47.87 | 164.7 | 176.7 | 188.2 | | | | 188.3 | 188.9 |
| 2018 | 58.3 | 412.9 | 405 | 303 | 224.0 | 9.1 | 2 | 547 | 71.6 | 459 | 47.7 | 50.55 | 171.2 | 182.7 | | | | | 183.4 | 184.0 |
| 2019 | 58.3 | 518.9 | 303 | 307 | 224.0 | 9.1 | 2 | 634 | 87.2 | 122 | 17.7 | 61.39 | 184.7 | | | | | | 192.9 | 192.8 |
| 2020* | 58.3 | 353.6 | 215 | 311 | 224.0 | 9.1 | 2 | 503 | 122.0 | 191 | 6.3 | 51.75 | 158.2 | 165.2 | 176.2 | | | | 185.5 | 185.8 |
| 2021 | 58.3 | 356.2 | 212 | 310 | 224.0 | 9.1 | 2 | 549 | 127.3 | 207 | 38.3 | 33.33 | 155.2 | 162.7 | | | | | 173.7 | 174.6 |
| 2022 | 66.8 | 214.5 | 164 | 316 | 230.1 | 30.5 | 2 | 233 | 61.2 | 110 | 34.1 | 14.54 | 149.9 | 158.4 | | | | | 159.8 | 160.2 |
| 2023 | 93.1 | 293.2 | 86 | 316 | 88.4 | 26.5 | 2 | 216 | 24.9 | 0 | 68.9 | 19.55 | 144.3 | 148.8 | | | | | 168.9 | 169.4 |
| 2024 | 93.1 | 174.3 | 77 | 320 | 88.4 | 68.6 | 2 | 0 | 76.6 | 0 | 46.7 | 5.78 | 142.8 | 146.8 | | | | | 151.7 | 152.8 |
| 2025* | 180.4 | 100.7 | 92 | 313 | 178.9 | 8.5 | 1 | 216 | 60.3 | 216 | 40.4 | 4.83 | 132.0 | 137.0 | 141.5 | 144.5 | 147.5 | | 148.7 | 141.3 |
| 2026* | 180.4 | 183.6 | 115 | 313 | 178.9 | 8.5 | 2 | 183 | 57.6 | 253 | 64.4 | 12.43 | 157.9 | 170.9 | 179.9 | 188.4 | 194.4 | | 168.4 | 169.7 |
| 2027* | 180.4 | 236.6 | 92 | 316 | 178.9 | 9.1 | 2 | 152 | 69.0 | 152 | 30.3 | 17.23 | 144.0 | 159.5 | 174.0 | 186.0 | 194.5 | | 174.6 | 174.9 |
| 2028* | 495.0 | 100.7 | 92 | 313 | 180.7 | 8.5 | 1 | 216 | 60.3 | 216 | 40.4 | 4.80 | 136.7 | 143.7 | 148.2 | 151.2 | 153.7 | | 159.2 | 151.7 |
| 2029* | 495.0 | 183.6 | 115 | 313 | 180.7 | 8.5 | 2 | 183 | 57.6 | 253 | 64.4 | 12.40 | 176.2 | 196.2 | | | | | 182.5 | 182.1 |
| 2030* | 495.0 | 236.6 | 92 | 316 | 180.7 | 9.1 | 2 | 152 | 69.0 | 152 | 30.3 | 17.20 | 170.2 | 184.2 | | | | | 188.1 | 187.5 |
| 2031* | 560.0 | 189.8 | 215 | 314 | 180.7 | 8.5 | 2 | 244 | 97.0 | 171 | 44.9 | 8.97 | 147.3 | 169.8 | 183.3 | | | | 179.7 | 179.7 |
| 2032* | 560.0 | 273.8 | 212 | 312 | 180.7 | 8.5 | 2 | 249 | 98.5 | 236 | 65.0 | 18.43 | 180.3 | 199.3 | | | | | 192.4 | 191.3 |
| 2033* | 560.0 | 328.2 | 182 | 313 | 180.7 | 9.1 | 2 | 229 | 101.2 | 220 | 51.0 | 24.83 | 175.8 | 200.3 | | | | | 197.5 | 197.0 |
| 2034* | 94.3 | 203.2 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 20.7 | 17.10 | 148.9 | 156.4 | 166.9 | 180.4 | | | 170.7 | 171.6 |
| 2035* | 94.3 | 369.2 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 31.0 | 35.35 | 156.3 | 169.3 | 182.8 | | | | 183.0 | 182.7 |
| 2036* | 94.3 | 543.3 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 23.1 | 59.08 | 170.8 | | | | | | 199.6 | 198.5 |
| 2037 | 94.3 | 698.3 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 17.9 | 80.58 | 184.4 | | | | | | 212.5 | 211.0 |
| 2038* | 94.3 | 957.0 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 42.0 | 114.15 | 185.8 | | | | | | 226.6 | 223.6 |
| 2039 | 185.3 | 241.0 | 92 | 317 | 86.9 | 9.1 | 2 | 50 | 31.5 | 230 | 8.4 | 29.77 | 157.7 | 179.7 | | | | | 187.2 | 188.1 |
| 2040* | 180.4 | 171.4 | 192 | 310 | 118.9 | 9.1 | 2 | 445 | 68.1 | 155 | 50.5 | 16.00 | 153.0 | 166.0 | 178.0 | 185.0 | 190.5 | | 179.3 | 179.4 |
| 2041* | 180.4 | 210.8 | 113 | 316 | 118.9 | 9.1 | 2 | 203 | 30.3 | 152 | 9.3 | 14.84 | 158.5 | 172.0 | 184.5 | 193.5 | | | 174.2 | 174.0 |
| 2042* | 180.4 | 331.1 | 99 | 313 | 118.9 | 8.5 | 2 | 218 | 28.6 | 167 | 48.4 | 26.45 | 155.0 | 173.5 | 185.5 | 194.5 | | | 183.7 | 183.8 |
| 2043* | 180.4 | 412.1 | 128 | 316 | 118.9 | 8.5 | 2 | 67 | 96.6 | 177 | 2.3 | 38.67 | 173.4 | 192.4 | | | | | 195.5 | 196.6 |
| 2044* | 180.4 | 466.2 | 115 | 315 | 118.9 | 9.1 | 2 | 64 | 95.9 | 220 | 50.4 | 42.90 | 164.5 | 186.0 | 196.0 | | | | 195.1 | 195.5 |
| 2045* | 560.0 | 171.4 | 192 | 310 | 125.0 | 9.1 | 2 | 445 | 68.1 | 155 | 50.5 | 15.91 | 163.3 | 179.8 | 190.8 | | | | 189.6 | 189.5 |
| 2046* | 560.0 | 210.8 | 113 | 316 | 125.0 | 9.1 | 2 | 203 | 30.3 | 152 | 9.3 | 14.64 | 181.8 | 193.8 | 203.3 | | | | 187.7 | 186.9 |
| 2047* | 560.0 | 331.1 | 99 | 313 | 125.0 | 8.5 | 2 | 218 | 28.6 | 167 | 48.4 | 26.24 | 172.8 | 190.3 | 206.3 | | | | 198.6 | 198.0 |
| 2048* | 560.0 | 412.1 | 128 | 316 | 125.0 | 8.5 | 2 | 67 | 96.6 | 177 | 2.3 | 38.65 | 193.8 | 219.3 | | | | | 208.3 | 208.0 |
| 2049* | 560.0 | 466.2 | 115 | 315 | 125.0 | 9.1 | 2 | 64 | 95.9 | 220 | 50.4 | 42.84 | 188.8 | 214.3 | | | | | 210.7 | 210.2 |
| 2050* | 187.0 | 203.2 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 20.7 | 17.10 | 141.8 | 156.8 | 170.8 | 183.8 | 193.3 | | 177.0 | 177.2 |
| 2051* | 187.0 | 369.2 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 31.0 | 35.35 | 158.2 | 175.7 | 185.7 | 196.7 | | | 190.5 | 190.2 |
| 2052* | 187.0 | 543.3 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 23.1 | 59.08 | 174.8 | 202.8 | | | | | 206.7 | 205.3 |
| 2053 | 187.0 | 698.3 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 17.9 | 80.58 | 183.9 | | | | | | 219.3 | 217.2 |
| 2054* | 187.0 | 957.0 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 42.0 | 114.15 | 195.7 | | | | | | 235.6 | 232.0 |
| 2057* | 90.9 | 107.5 | 84 | 313 | 150.0 | 18.0 | 1 | 245 | 61.8 | 245 | 45.7 | 9.27 | 136.5 | 146.5 | 151.9 | | | | 153.3 | 145.7 |
| 2058* | 180.0 | 150.8 | 76 | 315 | 211.2 | 26.8 | 2 | 171 | 66.6 | 171 | 20.1 | 15.40 | 150.5 | 162.5 | 169.5 | | | | 173.0 | 173.8 |
| 2059 | 45.0 | 160.8 | 157 | 314 | 91.4 | 21.3 | 2 | 247 | 47.5 | 188 | 17.1 | 22.33 | 139.9 | 149.9 | 161.9 | 173.4 | 187.9 | | 163.1 | 163.6 |
| 2060* | 41.5 | 204.2 | 112 | 315 | 91.4 | 1.8 | 2 | 203 | 61.3 | 186 | 51.7 | 18.77 | 139.9 | 149.9 | 161.9 | 173.4 | 187.9 | | 160.7 | 157.3 |
| 2061 | 91.5 | 268.0 | 182 | 311 | 161.5 | 18.0 | 2 | 494 | 18.2 | 104 | 22.7 | 31.86 | 186.6 | 196.6 | | | | | 180.5 | 180.5 |
| 2063* | 9640.0 | 279.7 | 99 | 316 | 4.9 | 57.9 | 2 | 237 | 94.1 | 95 | 36.2 | 25.61 | 214.0 | 222.0 | 231.5 | 240.0 | 246.5 | | 236.0 | 233.2 |
| 2064* | 3480.0 | 279.7 | 99 | 316 | 4.9 | 57.9 | 2 | 237 | 94.1 | 95 | 36.2 | 25.61 | 204.5 | 212.4 | 219.6 | 227.2 | 232.1 | | 221.5 | 219.9 |
| 2067* | 3480.0 | 399.5 | 93 | 317 | 4.9 | 11.6 | 2 | 206 | 91.6 | 66 | 15.1 | 41.15 | 217.5 | 224.5 | 230.0 | 237.5 | | | 233.2 | 231.4 |
| 2068 | 3480.0 | 259.8 | 98 | 317 | 4.9 | 22.9 | 2 | 198 | 91.2 | 85 | 7.4 | 30.72 | 214.6 | | | | | | 223.6 | 222.2 |
| 2069 | 3480.0 | 129.6 | 105 | 316 | 4.9 | 8.2 | 2 | 183 | 88.3 | 213 | 10.6 | 19.00 | | | 198.0 | | | | 212.0 | 211.5 |
| 2071* | 58.3 | 150.8 | 76 | 315 | 224.0 | 22.9 | 2 | 171 | 66.6 | 171 | 20.1 | 15.40 | 142.7 | 152.7 | 159.7 | | | | 161.2 | 164.7 |
| 2072* | 63.3 | 188.9 | 164 | 317 | 228.0 | 21.3 | 2 | 189 | 63.9 | 102 | 25.4 | 16.39 | 149.4 | 158.4 | 172.4 | | | | 167.2 | 167.4 |
| 2073 | 58.3 | 356.2 | 212 | 310 | 224.0 | 9.1 | 2 | 549 | 127.3 | 207 | 38.3 | 33.33 | | | 176.2 | | | | 173.7 | 174.6 |
| 2075* | 191.0 | 143.9 | 84 | 306 | 106.7 | 9.1 | 0 | | | | | | 125.0 | 132.5 | 140.0 | 147.0 | 153.0 | | 119.3 | 136.0 |
| 2079 | 3930.0 | 42.8 | 90 | 316 | 35.4 | 27.4 | 0 | | | | | | | | 143.4 | | | | 141.3 | 143.3 |
| 2083* | 203.5 | 439.6 | 330 | 320 | 14.9 | 19.8 | 2 | 0 | 56.8 | 120 | 32.5 | 42.47 | 187.7 | 201.2 | 212.7 | 220.2 | 224.2 | | 195.9 | 195.8 |
| 2084 | 900.0 | 400.0 | 0 | 315 | | 2 | 0 | 113.4 | 0 | 63.4 | 25.58 | | 183.6 | 205.6 | 214.6 | 223.6 | 227.6 | | 205.5 | 205.1 |
| 2085* | 774.0 | 203.2 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 20.7 | 17.10 | 129.1 | 166.1 | 191.6 | | | | 192.9 | 192. |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | H | HLT M | DLT KM | HLR M | DLR KM | THETA MR | L8 OBSERVED | | | | | TN LBCR | 101 LBCR | ESSA LBCR | 70 LBCR |
|----------|--------|-------|------|-----|-------|-------|---|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|---------|----------|-----------|---------|
| | | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | | |
| 2097* | 89.9 | 161.6 | 130 | 316 | 203.0 | 13.7 | 2 | 201 | 63.7 | 134 | 13.4 | 15.32 | 141.4 | 151.9 | 161.9 | 170.4 | 177.4 | 167.6 | 168.3 | | |
| 2098* | 1370.0 | 151.3 | 149 | 316 | 39.6 | 13.7 | 2 | 232 | 23.2 | 79 | 27.5 | 19.03 | 191.7 | 201.7 | 210.7 | 218.7 | 224.7 | 200.5 | 200.2 | | |
| 2099* | 535.0 | 386.0 | 32 | 317 | 190.2 | 13.7 | 2 | 30 | 83.1 | 0 | 15.7 | 32.78 | 173.4 | 199.9 | 212.9 | | | 203.6 | 203.4 | | |
| 2100* | 774.0 | 83.7 | 100 | 312 | 121.9 | 12.2 | 0 | | | | | | 140.7 | 147.2 | 150.7 | | | 139.5 | 141.6 | | |
| 2101* | 774.0 | 137.9 | 242 | 306 | 121.9 | 15.8 | 2 | 457 | 75.2 | 397 | 16.1 | 14.00 | 170.1 | 182.1 | 192.6 | | | 189.2 | 188.5 | | |
| 2102* | 774.0 | 210.8 | 113 | 316 | 121.9 | 9.1 | 2 | 203 | 30.3 | 152 | 9.3 | 14.74 | 179.1 | 193.1 | | | | 191.9 | 191.0 | | |
| 2103* | 774.0 | 331.1 | 99 | 313 | 121.9 | 8.5 | 2 | 218 | 28.6 | 167 | 48.4 | 26.35 | 181.6 | 195.1 | | | | 203.1 | 202.3 | | |
| 2104* | 774.0 | 412.1 | 128 | 316 | 121.9 | 8.5 | 2 | 67 | 96.6 | 177 | 2.3 | 38.68 | 202.0 | | | | | 212.4 | 211.9 | | |
| 2105* | 774.0 | 466.2 | 115 | 315 | 121.9 | 9.1 | 2 | 64 | 95.9 | 228 | 50.4 | 42.87 | 190.1 | | | | | 215.1 | 214.5 | | |
| 2106* | 63.3 | 262.0 | 104 | 315 | 141.7 | 21.3 | 2 | 267 | 51.8 | 40 | 9.8 | 23.56 | 146.7 | 159.7 | 173.7 | 185.7 | 194.7 | 170.3 | 171.0 | | |
| 2107* | 201.0 | 98.2 | 33 | 320 | 289.9 | 12.2 | 1 | 8 | 76.6 | 8 | 21.6 | 0.46 | 143.4 | 148.9 | 152.9 | | | 139.5 | 145.9 | | |
| 2108 | 774.0 | 384.4 | 108 | 318 | 124.7 | 9.8 | 2 | 79 | 95.3 | 76 | 6.4 | 42.63 | 215.1 | | | | | 212.9 | 212.9 | | |
| 2109* | 560.0 | 203.2 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 20.7 | 17.10 | 133.3 | 163.3 | 188.8 | | | 189.2 | 189.0 | | |
| 2110* | 560.0 | 369.2 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 31.0 | 35.35 | 138.3 | 182.3 | | | | 205.0 | 203.9 | | |
| 2111* | 560.0 | 543.3 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 23.1 | 59.08 | 156.3 | 201.3 | | | | 220.7 | 218.5 | | |
| 2112* | 560.0 | 698.3 | 0 | 317 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 17.9 | 80.58 | 173.3 | 214.3 | | | | 233.2 | 229.9 | | |
| 2113* | 560.0 | 957.0 | 0 | 318 | 46.0 | 9.1 | 2 | 0 | 32.3 | 0 | 42.0 | 114.15 | 173.2 | 224.2 | | | | 250.7 | 246.3 | | |
| 2114* | 48.3 | 170.8 | 223 | 308 | 224.6 | 21.3 | 2 | 581 | 17.1 | 159 | 10.0 | 11.08 | 162.0 | 168.0 | 174.5 | | | 160.6 | 162.8 | | |
| 2115* | 560.0 | 505.7 | 110 | 312 | 45.7 | 8.5 | 2 | 0 | 32.0 | 291 | 86.1 | 51.43 | 182.3 | 207.3 | | | | 216.0 | 215.0 | | |
| 2116* | 58.3 | 121.5 | 72 | 315 | 224.9 | 22.9 | 1 | 175 | 69.5 | 175 | 52.0 | 2.37 | 121.7 | 125.7 | 129.7 | | | 134.5 | 134.5 | | |
| 2117* | 58.3 | 121.5 | 72 | 315 | 224.9 | 3.0 | 1 | 175 | 69.5 | 175 | 52.0 | 2.76 | 130.7 | 135.7 | 138.7 | | | 135.3 | 135.3 | | |
| 2118* | 180.4 | 121.5 | 72 | 315 | 210.9 | 3.0 | 1 | 175 | 69.5 | 175 | 52.0 | 2.96 | 127.5 | 132.5 | 136.5 | | | 138.0 | 138.0 | | |
| 2119* | 180.4 | 121.5 | 72 | 315 | 181.1 | 3.0 | 1 | 175 | 69.5 | 175 | 52.0 | 3.39 | 127.5 | 136.5 | 140.5 | | | 138.6 | 138.6 | | |
| 2120* | 180.4 | 150.8 | 76 | 315 | 181.1 | 26.8 | 2 | 171 | 66.6 | 171 | 20.1 | 15.85 | 149.5 | 162.5 | 170.5 | | | 173.5 | 174.1 | | |
| 2121* | 593.6 | 121.5 | 72 | 315 | 181.1 | 22.9 | 1 | 175 | 69.5 | 175 | 52.0 | 3.00 | 130.8 | 142.8 | 149.8 | | | 143.7 | 143.7 | | |
| 2122* | 495.0 | 121.5 | 72 | 315 | 181.1 | 4.9 | 1 | 175 | 69.5 | 175 | 52.0 | 3.35 | 139.3 | 148.3 | 151.3 | | | 142.2 | 142.2 | | |
| 2123* | 58.3 | 151.8 | 73 | 314 | 224.9 | 21.3 | 2 | 155 | 73.7 | 229 | 29.8 | 14.57 | 142.7 | 152.7 | 159.7 | | | 156.9 | 164.8 | | |
| 2124* | 495.0 | 121.5 | 72 | 315 | 210.9 | 4.9 | 1 | 175 | 69.5 | 175 | 52.0 | 2.92 | 139.3 | 148.3 | 151.3 | | | 141.3 | 141.3 | | |
| 2125* | 196.3 | 177.3 | 182 | 311 | 121.9 | 29.3 | 2 | 427 | 30.9 | 155 | 16.3 | 20.22 | 153.2 | 166.2 | 176.2 | 190.2 | 201.2 | 178.5 | 178.5 | | |
| 2126* | 196.2 | 158.1 | 178 | 313 | 214.0 | 29.3 | 2 | 290 | 99.4 | 220 | 14.6 | 16.56 | 156.3 | 170.3 | 178.3 | 192.3 | 203.3 | 175.1 | 175.7 | | |
| 2127* | 196.3 | 356.3 | 39 | 320 | 214.0 | 12.2 | 2 | 107 | 58.9 | 91 | 29.1 | 32.22 | 169.2 | 178.2 | 189.2 | | | 188.2 | 188.5 | | |
| 2128* | 196.0 | 205.4 | 127 | 317 | 214.9 | 29.3 | 2 | 107 | 65.0 | 145 | 6.4 | 16.38 | 158.6 | 169.1 | 179.1 | 189.6 | | 175.5 | 175.8 | | |
| 2129* | 196.3 | 75.1 | 76 | 315 | 214.9 | 9.1 | 0 | | | | | | 139.2 | 143.2 | 147.2 | 151.2 | 154.2 | 120.9 | 130.8 | | |
| 2130 | 53.2 | 152.2 | 116 | 315 | 118.0 | 9.1 | 2 | 226 | 70.8 | 152 | 7.4 | 13.98 | 144.9 | 154.9 | 164.9 | 173.9 | | 160.1 | 156.6 | | |
| 2131* | 53.3 | 163.2 | 19 | 322 | 118.0 | 9.1 | 2 | 0 | 67.3 | 0 | 43.3 | 5.94 | 128.2 | 139.7 | 153.2 | 167.2 | 178.2 | 144.5 | 144.8 | | |
| 2132* | 174.1 | 474.0 | 52 | 320 | 120.1 | 10.1 | 2 | 160 | 76.0 | 0 | 43.5 | 46.36 | 157.2 | 179.2 | 194.2 | 211.2 | | 196.0 | 196.4 | | |
| 2133* | 174.1 | 195.8 | 14 | 320 | 120.1 | 14.6 | 2 | 55 | 20.7 | 0 | 16.2 | 15.03 | 158.2 | 169.7 | 184.7 | | | 175.8 | 176.3 | | |
| 2134* | 775.0 | 39.9 | 88 | 316 | 9.1 | 12.2 | 0 | | | | | | 131.7 | 137.2 | 139.6 | 141.5 | 143.4 | 132.8 | 130.4 | | |
| 2135 | 86.0 | 315.0 | 0 | 322 | | | | 0 | 56.0 | 0 | 45.4 | 24.11 | 156.6 | 164.6 | 174.1 | 183.1 | | 171.4 | 171.9 | | |
| 2136* | 63.3 | 93.5 | 6 | 319 | 85.0 | 9.1 | 0 | | | | | | 117.5 | 121.5 | 128.0 | 135.5 | 139.5 | 109.1 | 126.8 | | |
| 2137* | 48.3 | 102.3 | 153 | 303 | 224.6 | 6.1 | 0 | | | | | | 123.1 | 126.1 | 132.1 | 140.1 | 144.1 | 101.3 | 119.1 | | |
| 2138* | 48.3 | 243.4 | 217 | 315 | 224.6 | 26.8 | 2 | 247 | 98.0 | 95 | 8.7 | 22.33 | 144.0 | 154.0 | 168.0 | | | 170.0 | 169.1 | | |
| 2139 | 503.0 | 675.5 | 38 | 315 | 104.9 | 27.7 | 2 | 2 | 46.4 | 98 | 17.5 | 80.75 | 205.4 | | | | | 231.5 | 227.9 | | |
| 2140* | 53.3 | 112.9 | 34 | 316 | 121.9 | 9.1 | 1 | 198 | 70.9 | 198 | 42.0 | 6.49 | 119.0 | 122.0 | 124.5 | 126.5 | 128.5 | 135.4 | 136.3 | | |
| 2141* | 53.3 | 175.5 | 7 | 321 | 121.9 | 9.1 | 2 | 0 | 72.6 | 91 | 6.4 | 16.96 | 143.9 | 152.9 | 164.9 | 175.4 | | 170.8 | 171.4 | | |
| 2142* | 63.2 | 147.5 | 26 | 315 | 106.1 | 32.3 | 2 | 40 | 29.3 | 274 | 6.6 | 10.27 | 133.4 | 142.4 | 154.4 | 156.4 | 163.4 | 152.1 | 154.2 | | |
| 2143 | 58.3 | 169.0 | 0 | 324 | 38.1 | 9.1 | 2 | 0 | 55.5 | 0 | 43.2 | 7.84 | 124.3 | 134.3 | 146.3 | 158.8 | 168.8 | 149.8 | 152.2 | | |
| 2144 | 58.3 | 277.0 | 0 | 324 | 38.1 | 13.4 | 2 | 0 | 55.5 | 0 | 61.1 | 17.95 | 135.6 | 147.6 | 165.6 | 177.6 | 182.6 | 161.6 | 162.1 | | |
| 2145* | 48.3 | 250.3 | 226 | 314 | 198.1 | 21.3 | 2 | 253 | 120.2 | 200 | 12.7 | 22.70 | 158.1 | 168.1 | 180.1 | 189.1 | | 169.4 | 170.9 | | |
| 2146* | 48.3 | 349.2 | 131 | 322 | 198.1 | 12.2 | 2 | 0 | 111.5 | 98 | 9.2 | 28.99 | 147.0 | 156.5 | 168.5 | 180.5 | | 169.4 | 171.0 | | |
| 2147. | 41.3 | 267.0 | 0 | 322 | 442.0 | 14.3 | 2 | 0 | 95.6 | 0 | 57.9 | 12.72 | 137.8 | 148.8 | 162.8 | 175.8 | 187.8 | 152.7 | 153.6 | | |
| 2148* | 42.0 | 373.9 | 10 | 318 | 68.9 | 17.4 | 2 | 0 | 98.2 | 0 | 67.9 | 23.66 | 133.1 | 153.1 | 173.1 | 187.6 | 197.6 | 163.0 | 163.7 | | |
| 2150* | 41.5 | 501.8 | 90 | 312 | 173.7 | 9.1 | 2 | 640 | 50.7 | 0 | 60.0 | 52.79 | 159.7 | 173.7 | 182.7 | 189.7 | | 182.3 | 182.1 | | |
| 2151* | 191.3 | 143.9 | 84 | 306 | 122.8 | 10.1 | 0 | | | | | | 123.5 | 130.0 | 138.0 | 146.0 | 151.0 | 116.5 | 136.0 | | |
| 2152* | 191.2 | 195.2 | 157 | 313 | 122.8 | 29.3 | 2 | 326 | 61.6 | 191 | 14.2 | 17.54 | 162.8 | 173.3 | 186.8 | 202.3 | | 176.2 | 177.1 | | |
| 2153* | 191.3 | 219.3 | 72 | 305 | 122.8 | 9.1 | 2 | 503 | 146.4 | 472 | 68.1 | 19.20 | 154.0 | 161.5 | 167.5 | 173.0 | 179.0 | 165.0 | 165.0 | | |
| 2154* | 191.3 | 229.5 | 36 | 321 | 122.8 | 9.1 | 2 | 0 | 101.3 | 6 | 12.4 | 12.93 | 158.0 | 171.0 | 182.0 | 189.0 | | 176.0 | 176.8 | | |
| 2155* | 191.3 | 233.3 | 85 | 313 | 121.9 | 9.1 | 1 | 472 | 147.1 | 472 | 86.2 | 17.72 | 176.0 | 184.0 | 190.0 | 194.0 | | 183.2 | 175.4 | | |
| 2156* | 191.2 | 242.3 | 297 | 312 | 122.8 | 6.1 | 2 | 430 | 60.7 | 82 | 33.2 | 19.66 | 158.7 | 167.7 | 178.7 | 188.7 | | 178.8 | 178.5 | | |
| 2157* | 191.3 | 247.6 | 43 | 322 | 122.8 | 9.1 | 2 | 0 | 101.4 | 0 | 31.2 | 12.98 | 148.0 | 161.0 | 175.0 | 188.0 | | 172.1 | 172.7 | | |
| 2158* | 201.0 | 165.3 | 10 | 322 | 213.4 | 10.1 | 2 | 0 | 82.1 | 0 | 43.5 | 4.48 | 122.8 | 142.8 | 162.8 | 175.8 | 187.8 | 155.1 | 157.6 | | |
| 2159* | 201.3 | 312.9 | 116 | 318 | 213.4 | 9.1 | 2 | 61 | 80.6 | 229 | 30.3 | 26.04 | 163.9 | 174.4 | 183.9 | 193.4 | | 183.6 | 183.9 | | |
| 2160* | 174.1 | 249.4 | 153 | 314 | 217.9 | 13.1 | 2 | 230 | 44.5 | 0 | 57.5 | 17.00 | 156.2 | 167.2 | 179.7 | 191.2 | | 174.1 | 174.5 | | |
| 2161* | 650.0 | 90.2 | 124 | 315 | 224.0 | 6.1 | 2 | 248 | 65.7 | 128 | 7.9 | 12.52 | 149.3 | 150.8 | 154.3 | 163.3 | 169.8 | 157.3 | 157.3 | | |
| 2162* | 650.0 | 109.7 | 103 | 315 | 224.0 | 31.4 | 2 | 230 | 57.0 | 145 | 6.2 | 7.82 | 156.0 | 160.0 | 167.5 | 175.5 | 181.5 | 157.1 | 157.1 | | |
| 2163* | 650.0 | 276.9 | 82 | 316 | 224.0 | 10.1 | 2 | 213 | 74.3 | 143 | 4.7 | 33.48 | 192.6 | 201.6 | 216.6 | | | 202.7 | 202.3 | | |
| 2164* | 650.0 | 356.2 | 78 | 317 | 224.0 | 21.3 | 2 | 155 | 57.6 | 75 | 3.5 | 31.59 | 205.6 | 218.1 | 233.1 | | | 203.6 | 203.8 | | |
| 2165 | 3930.0 | 64.0 | 0 | 315 | 4.0 | 4.0 | 0 | | | | | | 135.6 | 136.1 | 137.7 | 149.0 | 155.0 | | 151.7 | | |
| 2166 | 3930.0 | 64.0 | 0 | 317 | 4.0 | 4.0 | 0 | | | | | | 135.5 | 136.5 | 138.5 | 144.6 | 151.3 | | 154.2 | | |
| | | | | | | | | | | | | | | | | | | | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | HLT M | DLT KM | HLR M | DLR KM | THETA MR | LB OBSERVED | | | | | TN 101 LBCR | ESSA 70 LBCR | |
|----------|--------|-------|------|-----|-------|-------|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|-------------|--------------|-------|
| | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | |
| 2179* | 93.8 | 454.9 | 103 | 317 | 131.1 | 9.1 | 2 | 238 | 13.0 | 0 | 79.1 | 37.37 | 178.4 | 189.4 | 203.9 | 208.6 | 217.6 | 183.8 | 183.9 |
| 2180* | 41.5 | 413.0 | 91 | 317 | 91.4 | 9.1 | 2 | 239 | 41.2 | 0 | 79.1 | 37.72 | 164.6 | 174.1 | 184.6 | | | 173.9 | 174.4 |
| 2181* | 93.8 | 449.9 | 100 | 317 | 131.1 | 9.1 | 2 | 238 | 83.0 | 0 | 24.8 | 43.69 | 182.8 | 191.8 | 202.8 | 216.3 | 229.8 | 188.4 | 188.9 |
| 2182 | 203.5 | 298.5 | 60 | 320 | 60.0 | 12.0 | 2 | 0 | 46.2 | 183 | 68.2 | 25.56 | | | 181.7 | | | 183.0 | 183.2 |
| 2183 | 858.0 | 300.8 | 54 | 318 | 10.7 | 4.0 | 2 | 67 | 18.4 | 49 | 70.2 | 26.93 | | | 209.0 | | | 203.9 | 203.2 |
| 2184 | 858.0 | 158.2 | 88 | 317 | 10.7 | 3.0 | 2 | 128 | 43.3 | 66 | 15.8 | 12.58 | | | 189.0 | | | 190.1 | 190.2 |
| 2185* | 650.0 | 209.0 | 169 | 314 | 334.1 | 44.8 | 2 | 230 | 106.7 | 183 | 50.2 | 13.76 | 181.6 | 189.6 | 199.1 | | | 188.4 | 187.3 |
| 2186* | 625.0 | 236.8 | 9 | 318 | 137.2 | 13.7 | 2 | 1 | 53.0 | 0 | 15.7 | 19.16 | 148.3 | 177.3 | 192.3 | | | 193.7 | 193.4 |
| 2187* | 93.8 | 235.2 | 170 | 317 | 130.5 | 1.8 | 2 | 95 | 70.5 | 175 | 51.3 | 17.59 | 132.9 | 149.4 | 168.9 | 188.4 | 203.4 | 167.5 | 167.5 |
| 2188 | 858.0 | 328.9 | 58 | 318 | 10.7 | 30.5 | 2 | 66 | 16.9 | 52 | 38.1 | 31.90 | | | 214.0 | | | 207.2 | 206.6 |
| | | | | | | | | | | | | | | | | | | | |
| 2189* | 535.0 | 482.0 | 64 | 314 | 208.5 | 12.2 | 2 | 76 | 77.5 | 125 | 4.7 | 47.53 | 175.9 | 210.9 | 221.9 | | | 213.4 | 212.5 |
| 2190 | 535.0 | 557.0 | 37 | 316 | 208.5 | 23.8 | 2 | 50 | 66.5 | 34 | 12.6 | 57.90 | 214.9 | | | | | 219.7 | 218.1 |
| 2191* | 650.0 | 209.0 | 169 | 316 | 224.0 | 10.7 | 2 | 149 | 85.2 | 183 | 50.2 | 15.48 | 181.6 | 189.6 | 199.1 | | | 189.9 | 188.8 |
| 2192* | 950.0 | 239.1 | 17 | 320 | 24.4 | 27.4 | 2 | 0 | 21.2 | 91 | 5.5 | 21.38 | 146.5 | 181.5 | 207.5 | 220.5 | 231.5 | 199.7 | 199.3 |
| 2193 | 876.0 | 501.1 | 135 | 314 | 9.1 | 27.4 | 2 | 299 | 22.7 | 93 | 13.8 | 60.46 | 222.2 | 235.2 | | | | 226.3 | 223.9 |
| 2194* | 876.0 | 275.8 | 204 | 314 | 9.1 | 12.2 | 2 | 302 | 22.5 | 186 | 61.0 | 29.79 | 184.2 | 195.2 | 205.2 | | | 205.2 | 204.4 |
| 2195* | 535.0 | 457.8 | 68 | 315 | 190.2 | 12.2 | 2 | 30 | 83.2 | 125 | 4.5 | 41.62 | 187.4 | 210.9 | 223.4 | | | 209.8 | 209.3 |
| 2196* | 535.0 | 582.7 | 91 | 315 | 190.2 | 31.4 | 2 | 30 | 82.7 | 153 | 7.1 | 61.72 | 213.9 | | | | | 221.9 | 220.0 |
| 2197* | 41.5 | 17.9 | 192 | 317 | 130.5 | 9.1 | 0 | | | | | | 105.7 | 106.2 | 106.7 | 107.2 | 107.7 | 93.8 | 97.6 |
| 2198* | 581.3 | 17.9 | 192 | 317 | 199.0 | 9.1 | 0 | | | | | | 124.7 | 125.2 | 126.2 | 127.2 | 127.2 | 111.3 | 116.6 |
| | | | | | | | | | | | | | | | | | | | |
| 2199* | 535.0 | 409.7 | 30 | 316 | 208.5 | 13.7 | 2 | 55 | 71.5 | 0 | 15.6 | 38.30 | 172.9 | 198.9 | 209.9 | | | 207.1 | 206.7 |
| 2200* | 41.5 | 77.8 | 92 | 314 | 143.9 | 8.5 | 2 | 201 | 55.5 | 198 | 19.3 | 5.55 | 126.2 | 131.2 | 133.2 | 133.7 | 141.2 | 136.7 | 136.7 |
| 2201* | 58.3 | 100.7 | 92 | 313 | 224.0 | 8.5 | 1 | 216 | 60.3 | 216 | 40.4 | 4.09 | 128.4 | 134.4 | 137.9 | 139.4 | 145.9 | 138.6 | 139.4 |
| 2202* | 88.3 | 100.7 | 92 | 313 | 196.6 | 8.5 | 1 | 216 | 60.3 | 216 | 40.4 | 4.54 | 125.5 | 131.0 | 136.0 | 137.5 | 141.5 | 142.3 | 142.8 |
| 2203* | 88.5 | 147.6 | 123 | 314 | 89.9 | 8.5 | 2 | 204 | 61.5 | 252 | 33.2 | 13.68 | 129.2 | 143.2 | 153.2 | 158.2 | 163.2 | 160.9 | 158.1 |
| 2204* | 63.3 | 180.1 | 140 | 315 | 230.1 | 8.5 | 2 | 247 | 71.0 | 136 | 52.6 | 11.47 | 139.9 | 154.9 | 167.9 | 174.4 | | 154.6 | 155.2 |
| 2205* | 89.9 | 180.1 | 140 | 315 | 203.0 | 8.5 | 2 | 247 | 71.0 | 136 | 52.6 | 11.85 | 137.9 | 151.4 | 165.4 | 174.4 | 181.9 | 159.3 | 160.1 |
| 2206* | 48.2 | 273.1 | 265 | 315 | 198.1 | 8.5 | 2 | 259 | 75.4 | 171 | 32.0 | 18.13 | 143.0 | 153.0 | 164.5 | 174.0 | 178.0 | 161.9 | 162.6 |
| 2207* | 88.1 | 273.1 | 205 | 315 | 169.2 | 8.5 | 2 | 261 | 74.3 | 131 | 32.0 | 18.52 | 140.2 | 157.2 | 172.2 | 183.2 | | 168.5 | 169.0 |
| 2208* | 191.2 | 137.2 | 39 | 320 | 210.3 | 14.9 | 2 | 0 | 88.1 | 0 | 38.7 | 1.17 | 136.6 | 144.0 | 147.9 | 150.8 | 155.2 | 140.0 | 145.4 |
| | | | | | | | | | | | | | | | | | | | |
| 2209* | 201.3 | 121.4 | 10 | 320 | 213.4 | 14.9 | 2 | 0 | 81.9 | 0 | 38.7 | 0.09 | 122.2 | 129.4 | 137.6 | 143.6 | 150.7 | 132.7 | 135.6 |
| 2212* | 2627.0 | 151.3 | 155 | 314 | 24.4 | 59.1 | 2 | 291 | 31.9 | 113 | 3.1 | 26.95 | 205.8 | 210.8 | 217.9 | 225.3 | 233.1 | 214.0 | 213.3 |
| 2213* | 2627.0 | 151.3 | 155 | 314 | 24.4 | 10.7 | 2 | 291 | 31.9 | 113 | 3.1 | 42.77 | 211.0 | 216.6 | 223.9 | 231.3 | 237.7 | 221.3 | 220.2 |
| 2214* | 661.3 | 17.9 | 192 | 317 | 211.2 | 9.1 | 0 | | | | | | 128.0 | 129.6 | 132.3 | 133.8 | 134.3 | 113.2 | 117.5 |
| 2215* | 41.5 | 50.9 | 88 | 319 | 130.5 | 9.1 | 2 | 108 | 32.9 | 61 | 2.5 | 6.82 | 132.7 | 135.4 | 136.7 | 138.8 | 139.6 | 135.1 | 134.0 |
| 2216* | 503.0 | 409.7 | 30 | 316 | 208.5 | 13.7 | 2 | 55 | 71.5 | 0 | 15.6 | 38.30 | 186.9 | 199.4 | 215.4 | | | 206.3 | 205.9 |
| 2217* | 48.3 | 273.8 | 212 | 312 | 224.0 | 9.1 | 2 | 249 | 98.5 | 236 | 65.0 | 17.98 | 146.5 | 155.8 | 168.9 | | | 160.6 | 161.5 |
| 2218* | 48.3 | 282.3 | 191 | 313 | 224.0 | 9.1 | 2 | 227 | 101.2 | 220 | 5.2 | 51.03 | 158.5 | 168.5 | 180.4 | | | 183.2 | 187.9 |
| 2219* | 48.3 | 288.6 | 181 | 314 | 224.0 | 9.1 | 2 | 228 | 98.3 | 183 | 14.3 | 29.82 | 162.0 | 168.5 | 178.5 | | | 178.1 | 180.8 |
| 2220* | 58.3 | 183.6 | 115 | 313 | 224.0 | 9.1 | 2 | 183 | 57.6 | 253 | 64.4 | 11.64 | 142.0 | 152.3 | 163.1 | | | 155.9 | 154.8 |
| | | | | | | | | | | | | | | | | | | | |
| 2221* | 58.3 | 191.6 | 113 | 316 | 224.0 | 9.1 | 2 | 171 | 58.4 | 122 | 2.4 | 38.64 | 153.2 | 163.2 | 175.7 | | | 178.8 | 180.3 |
| 2222* | 58.3 | 197.1 | 90 | 314 | 224.0 | 9.1 | 2 | 172 | 66.5 | 216 | 12.9 | 26.72 | 158.2 | 164.7 | 174.2 | | | 176.0 | 177.4 |
| 2223* | 581.3 | 50.9 | 88 | 319 | 199.0 | 9.1 | 2 | 66 | 47.7 | 61 | 2.5 | 4.76 | 149.7 | 151.7 | 153.2 | 155.2 | 155.7 | 141.8 | 156.4 |
| 2224* | 661.3 | 50.9 | 88 | 319 | 211.2 | 9.1 | 2 | 66 | 47.7 | 61 | 2.5 | 4.51 | 145.3 | 154.3 | 157.5 | 160.3 | 161.3 | 142.5 | 157.8 |
| 2228 | 600.0 | 338.7 | 1340 | 275 | 45.0 | 100.0 | 2 | 1090 | 43.2 | 1150 | 53.3 | 64.70 | 207.5 | 210.0 | 217.5 | 227.5 | 232.5 | 217.7 | 218.5 |
| 2229 | 2120.0 | 338.7 | 1340 | 275 | 45.0 | 100.0 | 2 | 1090 | 43.2 | 1150 | 53.3 | 64.70 | 224.6 | 229.2 | 234.7 | 243.7 | 250.7 | 235.1 | 235.0 |
| 2230* | 600.0 | 804.5 | 791 | 317 | 45.0 | 3.0 | 2 | 770 | 29.6 | 560 | 64.4 | 126.52 | 252.0 | 253.9 | 255.6 | 257.7 | 259.0 | 251.0 | 246.6 |
| 2231* | 2120.0 | 804.5 | 791 | 317 | 45.0 | 3.0 | 2 | 770 | 29.6 | 560 | 64.4 | 126.52 | 268.7 | 273.3 | 275.5 | 277.8 | 280.0 | 268.6 | 263.1 |
| 2232 | 2167.6 | 341.5 | 0 | 295 | 9.0 | 9.0 | 1 | 930 | 173.0 | 930 | 168.5 | 27.13 | 186.3 | 193.2 | 200.8 | 208.3 | 218.2 | 210.6 | 217.8 |
| 2233* | 1773.4 | 287.2 | 335 | 293 | 11.0 | 11.0 | 2 | 204 | 2.6 | 720 | 73.7 | 38.71 | 201.9 | 208.1 | 215.5 | 222.3 | 227.4 | 221.8 | 219.9 |
| | | | | | | | | | | | | | | | | | | | |
| 2234* | 1773.4 | 239.8 | 14 | 309 | 11.0 | 8.0 | 2 | 25 | 8.6 | 40 | 6.7 | 25.61 | 192.8 | 199.7 | 207.4 | 213.7 | 218.2 | 212.3 | 211.0 |
| 2235* | 1773.4 | 274.5 | 239 | 298 | 8.0 | 11.0 | 2 | 360 | 34.3 | 295 | 73.4 | 37.30 | 205.7 | 209.5 | 214.9 | 229.4 | 235.4 | 219.2 | 218.7 |
| 2236* | 1773.4 | 309.8 | 231 | 304 | 11.0 | 11.0 | 2 | 300 | 13.8 | 67 | 2.1 | 46.92 | 203.1 | 209.7 | 217.5 | 223.6 | 228.6 | 224.2 | 223.2 |
| 2237* | 7273.4 | 21.9 | 135 | 301 | 18.2 | 21.3 | 2 | 144 | 4.7 | 128 | 9.3 | 19.56 | 169.7 | 173.2 | 177.4 | 181.2 | 184.7 | 178.2 | 178.2 |
| 2238* | 7273.4 | 37.2 | 45 | 301 | 18.8 | 4.5 | 2 | 120 | 20.3 | 120 | 14.2 | 7.58 | 165.0 | 173.1 | 178.5 | 183.3 | 188.5 | 182.1 | 182.1 |
| 2239* | 7273.4 | 46.6 | 549 | 301 | 3.9 | 3.9 | 0 | | | | | | 142.5 | 144.1 | 146.7 | 149.5 | | 143.1 | 148.4 |
| 2240* | 1773.4 | 349.0 | 582 | 285 | 12.5 | 12.5 | 2 | 1080 | 60.0 | 500 | 76.0 | 29.33 | 200.9 | 209.3 | 217.0 | 223.3 | 218.7 | 217.5 | |
| 2241* | 1773.4 | 296.5 | 190 | 301 | 11.0 | 7.9 | 2 | 160 | 131.6 | 300 | 83.1 | 13.17 | 191.9 | 201.5 | 208.4 | 212.8 | 204.4 | 202.9 | |
| 2242* | 7273.4 | 10.3 | 582 | 301 | 14.9 | 4.5 | 1 | 585 | 1.0 | 585 | 9.3 | 78.30 | 176.7 | 178.9 | 181.3 | 184.0 | 186.5 | 167.1 | 167.1 |
| 2243* | 7273.4 | 179.5 | 263 | 301 | 6.0 | 6.0 | 0 | | | | | | | | 145.1 | 151.7 | 158.3 | 160.2 | 162.6 |
| | | | | | | | | | | | | | | | | | | | |
| 2244* | 7273.4 | 18.8 | 697 | 301 | 15.2 | 3.9 | 0 | | | | | | 131.8 | 134.9 | 139.0 | 143.8 | 148.0 | 135.2 | 138.6 |
| 2245* | 1773.4 | 214.5 | 15 | 314 | 7.9 | 7.9 | 2 | 10 | 10.9 | 0 | 104.2 | 11.40 | | | 202.5 | 214.8 | 219.4 | 199.3 | 198.8 |
| 2246* | 1773.4 | 230.8 | 289 | 301 | 11.0 | 11.0 | 2 | 500 | 144.6 | 500 | 8.2 | 23.58 | 183.4 | 190.8 | 204.2 | 211.0 | 216.4 | 211.4 | 209.9 |
| 2247* | 1773.4 | 578.7 | 6 | 327 | 12.5 | 12.5 | 2 | 0 | 87.7 | 0 | 86.2 | 46.92 | 223.8 | 234.7 | 244.9 | 255.0 | 261.1 | 231.2 | 229.1 |
| 2250* | 159.5 | 260.2 | 664 | 260 | 45.0 | 14.0 | 2 | 1660 | 136.4 | 1660 | 122.3 | 39.93 | 157.0 | 164.0 | 168.0 | 174.5 | 184.0 | 168.2 | 168.2 |
| 2251* | 600.0 | 260.2 | 664 | 260 | 45.0 | 14.0 | 2 | 1660 | 136.4 | 1660 | 122.3 | 39.93 | 177.0 | 179.8 | 185.0 | 192.0 | 197.0 | 178.7 | 178.7 |
| 2252 | 159.5 | 284.3 | 786 | 260 | 45.0 | 5.0 | 1 | 1650 | 140.5 | 1650 | 143.8 | 32.10 | 150.0 | 153.0 | 158.5 | 164.0 | 170.5 | 165.9 | 171.4 |
| 2253 | 600.0 | 284.3 | | | | | | | | | | | | | | | | | |

TABLE 2. CONTINUED

| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG H | HLT M | OLT KM | HLR M | OLR KM | THETA MR | LB OBSERVED | | | | | TN LBCR | 101 ESSA | 70 LPCR |
|----------|--------|-------|------|-----|-------|-------|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|---------|----------|---------|
| | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | |
| 2266* | 107.8 | 283.6 | 1 | 310 | 182.0 | 80.0 | 2 | 0 | 58.8 | 0 | 47.4 | 20.53 | 143.6 | 164.6 | 179.2 | 192.2 | 202.2 | 172.0 | 172.6 |
| 2267* | 175.8 | 283.6 | 1 | 310 | 182.0 | 80.0 | 2 | 0 | 58.8 | 0 | 47.4 | 20.53 | 151.8 | 177.2 | 190.2 | 201.2 | 207.2 | 178.3 | 178.6 |
| 2268* | 3000.0 | 300.8 | 0 | 306 | 5.0 | 85.0 | 2 | 0 | 18.5 | 0 | 56.3 | 26.35 | 200.9 | 205.3 | 208.4 | 215.5 | 222.1 | 221.6 | 219.8 |
| 2269* | 3000.0 | 300.8 | 0 | 306 | 5.0 | 51.5 | 2 | 0 | 18.5 | 0 | 51.0 | 26.98 | 212.5 | 215.6 | 219.2 | 224.0 | 229.2 | 222.0 | 220.2 |
| 2270* | 3000.0 | 300.8 | 0 | 306 | 5.0 | 7.0 | 2 | 0 | 18.5 | 0 | 42.8 | 27.93 | 207.9 | 217.1 | 221.2 | 230.0 | 241.0 | 222.5 | 220.7 |
| 2271* | 159.5 | 309.3 | 264 | 304 | 51.0 | 18.0 | 2 | 15 | 51.4 | 265 | 9.8 | 32.87 | 166.1 | 180.1 | 195.1 | 207.1 | 214.1 | 186.4 | 185.9 |
| 2272* | 599.0 | 309.3 | 264 | 304 | 28.0 | 15.0 | 2 | 14 | 35.9 | 265 | 9.8 | 33.86 | 186.6 | 195.6 | 208.6 | 218.6 | 225.6 | 204.1 | 203.2 |
| 2273* | 2120.0 | 309.3 | 264 | 304 | 28.0 | 15.0 | 2 | 14 | 35.9 | 265 | 9.8 | 33.86 | 204.3 | 213.3 | 222.3 | 230.3 | 237.3 | 221.5 | 219.6 |
| 2277* | 254.6 | 115.4 | 3 | 306 | 45.0 | 100.0 | 2 | 0 | 29.3 | 0 | 58.6 | 3.22 | 135.1 | 144.5 | 156.1 | 164.1 | 168.3 | 151.2 | 157.3 |
| 2278* | 970.0 | 115.4 | 3 | 306 | 30.0 | 100.0 | 2 | 0 | 24.5 | 0 | 58.6 | 3.77 | 145.3 | 165.5 | 178.0 | 186.9 | 198.9 | 172.0 | 175.1 |
| 2279* | 48.7 | 300.8 | 0 | 306 | 10.0 | 88.0 | 2 | 0 | 20.7 | 0 | 56.8 | 26.05 | 160.9 | 168.0 | 178.8 | 192.1 | 198.4 | 173.2 | 173.4 |
| 2280* | 1310.0 | 300.8 | 0 | 306 | 5.0 | 85.0 | 2 | 0 | 18.5 | 0 | 56.3 | 26.35 | 172.6 | 195.3 | 208.0 | 217.0 | 222.3 | 210.2 | 209.1 |
| 2281* | 2995.0 | 300.8 | 0 | 306 | 5.0 | 85.0 | 2 | 0 | 18.5 | 0 | 56.3 | 26.35 | 176.4 | 201.4 | 222.4 | 232.8 | 238.4 | 221.6 | 219.8 |
| 2282* | 1310.0 | 438.1 | 345 | 304 | 5.0 | 5.0 | 2 | 0 | 18.5 | 860 | 88.2 | 54.92 | 194.0 | 208.0 | 221.2 | 235.5 | 245.8 | 228.2 | 227.0 |
| 2283* | 2995.0 | 438.1 | 345 | 304 | 5.0 | 5.0 | 2 | 0 | 18.5 | 860 | 88.2 | 54.92 | 211.0 | 224.0 | 239.5 | 254.5 | 267.0 | 239.2 | 237.1 |
| 2284* | 48.7 | 341.5 | 0 | 295 | | | 1 | 930 | 168.5 | 930 | 173.0 | 27.30 | 143.0 | 151.0 | 160.5 | 168.0 | 177.0 | 159.6 | 166.7 |
| 2285* | 48.7 | 341.5 | 0 | 295 | | | 1 | 930 | 168.5 | 930 | 173.0 | 27.30 | 150.0 | 155.0 | 161.0 | 167.0 | 175.1 | 159.6 | 166.7 |
| 2286* | 209.0 | 341.5 | 0 | 295 | | | 1 | 930 | 168.5 | 930 | 173.0 | 27.30 | 155.0 | 158.5 | 162.5 | 167.0 | 170.0 | 162.0 | 187.4 |
| 2287* | 970.0 | 341.5 | 0 | 295 | | | 1 | 930 | 168.5 | 930 | 173.0 | 27.30 | 179.0 | 183.8 | 190.0 | 197.0 | 203.0 | 182.0 | 207.4 |
| 2288* | 970.0 | 341.5 | 0 | 295 | | | 1 | 930 | 168.5 | 930 | 173.0 | 27.30 | 186.0 | 189.0 | 193.0 | 201.0 | 209.0 | 182.0 | 207.4 |
| 2289* | 48.7 | 339.2 | 25 | 322 | 10.0 | 185.0 | 2 | 320 | 0.6 | 0 | 59.5 | 49.33 | 160.0 | 167.0 | 177.0 | 188.0 | 196.4 | 186.7 | 188.0 |
| 2290* | 48.7 | 339.2 | 25 | 322 | 10.0 | 185.0 | 2 | 320 | 0.6 | 0 | 59.5 | 49.33 | 156.0 | 164.5 | 176.0 | 185.0 | 193.0 | 186.7 | 188.0 |
| 2291* | 209.0 | 339.2 | 25 | 322 | 10.0 | 185.0 | 2 | 320 | 0.6 | 0 | 59.5 | 49.33 | 169.0 | 179.0 | 190.5 | 201.5 | 211.0 | 198.8 | 199.5 |
| 2292* | 970.0 | 339.2 | 25 | 322 | 10.0 | 185.0 | 2 | 320 | 0.6 | 0 | 59.5 | 49.33 | 207.0 | 211.0 | 218.5 | 230.0 | | 216.6 | 216.5 |
| 2293* | 970.0 | 339.2 | 25 | 322 | 5.0 | 185.0 | 2 | 320 | 0.6 | 0 | 59.5 | 57.89 | 146.5 | 155.9 | 192.5 | 201.0 | | 221.0 | 220.5 |
| 2294* | 970.0 | 339.2 | 25 | 322 | 5.0 | 185.0 | 2 | 320 | 0.6 | 0 | 59.5 | 57.89 | 206.9 | 209.3 | 211.4 | 216.9 | 217.5 | | 220.5 |
| 2295* | 1310.0 | 416.2 | 1 | 306 | 5.0 | 30.0 | 2 | 0 | 18.5 | 0 | 24.5 | 44.47 | 193.3 | 203.1 | 214.7 | 227.9 | 238.7 | 222.5 | 221.4 |
| 2296* | 2995.0 | 416.2 | 1 | 306 | 5.0 | 30.0 | 2 | 0 | 18.5 | 0 | 24.5 | 44.47 | 202.8 | 214.9 | 227.9 | 243.2 | 255.1 | 234.0 | 232.2 |
| 2297* | 1317.0 | 427.2 | 227 | 314 | 3.0 | 37.0 | 2 | 540 | 84.8 | 525 | 110.2 | 45.92 | 203.0 | 208.8 | 218.6 | 230.0 | 234.7 | 222.2 | 222.1 |
| 2300* | 159.5 | 344.0 | 267 | 308 | 80.0 | 10.0 | 2 | 19 | 56.1 | 360 | 38.6 | 41.12 | 184.6 | 190.6 | 200.2 | 210.1 | 214.3 | 194.0 | 195.0 |
| 2301* | 159.5 | 344.0 | 267 | 308 | 49.0 | 10.0 | 2 | 13 | 45.7 | 360 | 38.6 | 41.79 | 176.7 | 183.8 | 191.2 | 199.2 | 206.0 | 194.0 | 195.2 |
| 2302* | 159.5 | 225.2 | 172 | 302 | 80.0 | 5.5 | 2 | 21 | 56.2 | 470 | 45.0 | 20.86 | 159.5 | 173.0 | 185.7 | 194.8 | 201.4 | 177.1 | 177.4 |
| 2303* | 159.5 | 225.2 | 172 | 302 | 49.0 | 5.5 | 2 | 17 | 50.9 | 470 | 45.0 | 21.45 | 152.8 | 163.5 | 175.0 | 182.5 | 188.7 | 177.6 | 177.8 |
| 2304* | 600.0 | 344.0 | 267 | 308 | 47.0 | 3.0 | 2 | 13 | 45.7 | 80 | 8.0 | 42.26 | 194.0 | 199.3 | 207.7 | 218.3 | 225.6 | 211.7 | 212.1 |
| 2305* | 600.0 | 225.2 | 172 | 302 | 47.0 | 3.0 | 2 | 17 | 50.9 | 470 | 45.0 | 21.54 | 179.7 | 187.3 | 196.3 | 205.8 | 213.3 | 194.8 | 194.2 |
| 2306* | 2120.0 | 344.0 | 267 | 308 | 28.0 | 5.0 | 2 | 16 | 34.6 | 360 | 38.6 | 42.55 | 217.8 | 225.5 | 240.0 | 251.6 | 260.5 | 226.3 | 225.1 |
| 2307* | 2120.0 | 225.2 | 172 | 302 | 28.0 | 3.0 | 2 | 16 | 34.5 | 470 | 45.0 | 22.05 | 197.0 | 205.8 | 214.3 | 221.7 | 228.0 | 212.2 | 211.0 |
| 2308* | 153.0 | 123.9 | 46 | 308 | 5.0 | 10.0 | 2 | 62 | 10.7 | 48 | 25.0 | 9.63 | 160.3 | 173.6 | 184.9 | | | 166.1 | 159.0 |
| 2309* | 159.5 | 123.9 | 46 | 308 | 5.0 | 10.0 | 2 | 62 | 10.7 | 48 | 25.0 | 9.63 | 164.7 | 179.0 | 190.3 | | | 166.3 | 159.5 |
| 2310* | 159.5 | 364.9 | 1024 | 290 | 80.0 | 7.0 | 2 | 665 | 25.6 | 620 | 58.7 | 61.35 | 194.3 | 200.5 | 210.2 | 218.6 | 225.6 | 199.4 | 199.5 |
| 2311* | 600.0 | 364.9 | 1024 | 290 | 45.0 | 10.0 | 2 | 665 | 25.6 | 620 | 58.7 | 61.35 | | | 227.0 | | | 218.0 | 217.3 |
| 2314* | 152.1 | 125.6 | 32 | 309 | 45.0 | 33.0 | 2 | 17 | 42.7 | 33 | 22.1 | 7.27 | 141.1 | 151.0 | 164.2 | 172.0 | 178.6 | 161.0 | 163.1 |
| 2315* | 159.5 | 125.6 | 32 | 309 | 45.0 | 8.0 | 2 | 17 | 42.7 | 32 | 19.9 | 8.48 | 155.4 | 166.4 | 178.4 | 188.4 | 190.4 | 166.7 | 164.8 |
| 2316* | 600.0 | 125.6 | 32 | 309 | 45.0 | 8.0 | 2 | 17 | 42.7 | 32 | 19.9 | 8.48 | 139.7 | 150.5 | 175.1 | 190.2 | 195.0 | 179.6 | 180.2 |
| 2317* | 2980.0 | 125.6 | 32 | 309 | 15.0 | 6.0 | 2 | 20 | 29.4 | 32 | 19.9 | 9.38 | 193.9 | 206.9 | 221.4 | 225.9 | 231.4 | 200.7 | 200.4 |
| 2318* | 9375.0 | 125.6 | 32 | 309 | 15.0 | 7.0 | 2 | 20 | 29.4 | 32 | 19.9 | 9.33 | 188.8 | 199.8 | 218.8 | 224.8 | | 215.8 | 214.7 |
| 2320* | 600.0 | 125.6 | 32 | 309 | 45.0 | 8.0 | 2 | 17 | 42.7 | 32 | 19.9 | 8.48 | 154.0 | 165.6 | 180.0 | 185.4 | 191.7 | 179.6 | 180.2 |
| 2328* | 265.3 | 214.5 | 0 | 305 | | | 1 | 600 | 54.5 | 600 | 160.0 | 16.40 | 136.5 | 152.0 | 158.0 | 164.0 | 170.5 | 169.3 | 174.2 |
| 2330* | 970.0 | 214.5 | 0 | 305 | | | 1 | 600 | 54.5 | 600 | 160.0 | 16.40 | 147.0 | 161.0 | 167.0 | 171.0 | 180.5 | 179.7 | 196.0 |
| 2334* | 159.5 | 125.6 | 32 | 309 | 45.0 | 30.0 | 2 | 17 | 42.7 | 33 | 22.1 | 7.40 | 153.4 | 158.4 | 168.4 | 176.4 | 183.4 | 162.3 | 163.9 |
| 2341* | 600.0 | 125.6 | 32 | 309 | 45.0 | 30.0 | 2 | 17 | 42.7 | 33 | 22.1 | 7.40 | 140.0 | 164.0 | 180.0 | 192.5 | 197.5 | 176.9 | 177.4 |
| 2349* | 2980.0 | 125.6 | 32 | 309 | 15.0 | 6.0 | 2 | 20 | 29.4 | 32 | 19.9 | 9.38 | 189.3 | 203.2 | 212.2 | 220.1 | | 200.7 | 200.4 |
| 2350* | 400.0 | 125.1 | 47 | 291 | 8.0 | 21.0 | 0 | | | | | | 139.7 | 145.7 | 153.7 | 158.7 | 163.7 | 121.4 | 143.5 |
| 2351* | 400.0 | 125.1 | 47 | 291 | 8.0 | 41.5 | 0 | | | | | | 122.7 | 132.7 | 138.7 | 144.7 | 150.7 | 126.3 | 143.0 |
| 2352* | 6825.0 | 125.1 | 47 | 291 | 30.0 | 41.5 | 0 | | | | | | 154.5 | 162.5 | 172.5 | 181.5 | 189.5 | 147.4 | 163.3 |
| 2353* | 6825.0 | 125.1 | 47 | 291 | 30.0 | 21.0 | 0 | | | | | | 164.5 | 170.5 | 179.5 | 191.5 | | 148.1 | 163.8 |
| 2354* | 6825.0 | 125.1 | 47 | 291 | 30.0 | 28.0 | 0 | | | | | | 152.5 | 159.5 | 172.5 | 183.5 | 186.5 | 148.9 | 163.6 |
| 2355* | 6825.0 | 125.1 | 47 | 291 | 30.0 | 41.0 | 0 | | | | | | 156.3 | 160.4 | 169.4 | 177.8 | 181.4 | 156.5 | 163.3 |
| 2356* | 90.7 | 227.9 | 247 | 297 | 92.0 | 21.9 | 2 | 563 | 66.1 | 472 | 52.2 | 27.61 | 160.2 | 168.2 | 178.2 | 184.2 | 193.2 | 177.9 | 178.2 |
| 2357* | 191.3 | 639.9 | 333 | 306 | 54.0 | 44.0 | 2 | 168 | 32.2 | 485 | 55.7 | 80.80 | 195.7 | 220.7 | 225.7 | 229.7 | 232.7 | 216.6 | 215.4 |
| 2358* | 9339.5 | 42.7 | 420 | 296 | 30.0 | 33.0 | 0 | | | | | | 147.7 | 149.7 | 152.7 | 158.7 | 161.7 | 144.5 | 146.0 |
| 2360* | 1850.0 | 242.1 | 194 | 294 | 60.0 | 40.5 | 2 | 585 | 68.9 | 97 | 32.7 | 12.27 | 180.6 | 197.6 | 206.6 | 211.6 | 218.6 | 203.3 | 202.0 |
| 2361* | 516.0 | 242.1 | 194 | 294 | 60.0 | 38.0 | 2 | 585 | 68.9 | 97 | 32.7 | 12.35 | 163.4 | 178.4 | 193.4 | 199.4 | 206.4 | 187.0 | 185.5 |
| 2362* | 516.0 | 242.1 | 194 | 294 | 60.0 | 34.0 | 2 | 585 | 68.9 | 97 | 32.7 | 12.47 | 177.4 | 183.4 | 192.4 | 202.4 | 206.4 | 186.9 | 185.6 |
| 2363* | 516.0 | 142.6 | 289 | 289 | 15.0 | 37.5 | 0 | | | | | | 133.9 | 141.2 | 147.3 | | | 123.8 | 142.9 |
| 2364* | 547.0 | 142.6 | 289 | 289 | 18.0 | 36.0 | 0 | | | | | | 134.5 | 138.5 | 142.5 | 146.5 | 150.5 | 124.5 | 143.4 |
| 2365* | 4165.0 | 142.6 | 289 | 289 | 20.0 | 37.0 | 0 | | | | | | 146.6 | 150.6 | 156.6 | 165.6 | 173.6 | 147.9 | 157.9 |
| 2366* | 4165.0 | 142.6 | 289 | 289 | | | | | | | | | | | | | | | |

TABLE 2. CONTINUED

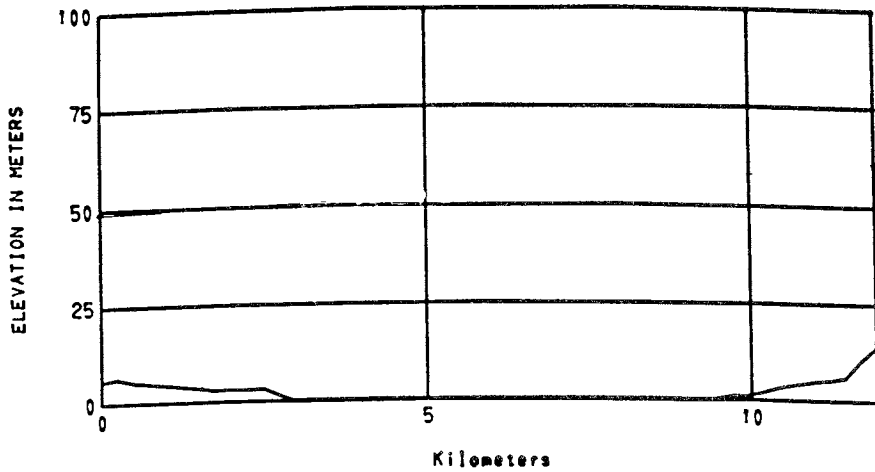
| PATH NO. | F MHZ | D KM | DH M | NS | HTG M | HRG M | H M | HLT M | DLT KM | HLR M | DLR KM | THETA HR | LB OBSERVED | | | | | TN LBCR | 101 LBCR | ESSA 70 LBCR | | |
|----------|--------|-------|------|-----|-------|-------|-----|-------|--------|-------|--------|----------|-------------|-------|-------|-------|-------|---------|----------|--------------|--|--|
| | | | | | | | | | | | | | 1% | 10% | 50% | 90% | 99% | | | | | |
| 2380 | 1965.0 | 404.0 | | 282 | | | | 1 | 4030 | 256.0 | 4030 | 148.0 | 194.7 | 200.0 | 206.2 | 213.2 | 219.4 | 198.8 | | | | |
| 2381* | 160.6 | 59.2 | 4 | 313 | 57.0 | 10.0 | 2 | 0 | 35.9 | 7 | 10.3 | 0.82 | 128.5 | 138.5 | 142.5 | 145.5 | 148.5 | 140.1 | 140.2 | | | |
| 2382* | 1898.0 | 77.2 | 0 | 314 | 22.6 | 17.0 | 2 | 0 | 22.1 | 0 | 24.3 | 3.53 | 127.9 | 153.9 | 180.9 | 189.9 | 196.9 | 178.4 | 180.3 | | | |
| 2383* | 6825.0 | 77.2 | 0 | 314 | 27.6 | 16.0 | 2 | 0 | 24.7 | 0 | 24.0 | 3.36 | 152.1 | 164.1 | 182.1 | 188.1 | 203.1 | 194.8 | 194.3 | | | |
| 2384 | 1750.0 | 242.1 | 194 | 294 | 60.0 | 34.0 | 2 | 585 | 68.9 | 97 | 32.7 | 12.47 | | | 202.8 | 209.7 | | 203.6 | 202.2 | | | |
| 2387 | 94.3 | 678.3 | 97 | 315 | 178.1 | 19.0 | 2 | 203 | 64.2 | 30 | 34.8 | 74.08 | | | 198.6 | | | 204.3 | 205.0 | | | |
| 2388* | 1715.4 | 419.1 | 249 | 307 | 15.0 | 40.5 | 2 | 125 | 32.3 | 200 | 34.0 | 49.92 | 216.6 | 223.6 | 231.6 | 242.6 | 252.6 | 229.6 | 227.0 | | | |
| 2389* | 4727.0 | 80.0 | 420 | 290 | 97.0 | 29.0 | 0 | | | | | | 139.0 | 140.8 | 143.0 | 144.8 | 147.5 | 144.0 | 145.1 | | | |
| 2390 | 4648.0 | 61.1 | 173 | 308 | 26.0 | 18.0 | 0 | | | | | | 136.5 | 137.5 | 141.2 | 145.0 | 148.0 | 141.7 | 147.8 | | | |
| 2391* | 4417.0 | 194.8 | 427 | 330 | 10.7 | 20.0 | 1 | 530 | 39.2 | 530 | 155.6 | 0.31 | 153.2 | 162.2 | 170.3 | 173.9 | 182.0 | 164.8 | 160.8 | | | |
| 2392 | 1100.0 | 125.0 | 80 | 309 | 2.5 | 1.5 | 2 | 200 | 27.0 | 100 | 21.0 | 9.22 | | | 187.7 | | | 187.1 | 178.4 | | | |
| 2393 | 1100.0 | 208.0 | 400 | 309 | 1.5 | 1.5 | 1 | 150 | 160.5 | 150 | 47.5 | 6.22 | | | 177.2 | | | 153.6 | 168.0 | | | |
| 2394 | 1100.0 | 240.0 | 200 | 302 | 4.0 | 4.0 | 2 | 590 | 67.0 | 150 | 60.0 | 24.72 | | | 213.4 | | | 205.3 | 204.7 | | | |
| 2401* | 100.0 | 192.0 | 17 | 313 | 96.0 | 38.0 | 2 | 21 | 34.0 | 0 | 27.3 | 13.66 | 141.4 | 148.1 | 159.0 | | | 166.6 | 167.1 | | | |
| 2402 | 90.3 | 26.3 | 328 | 299 | 100.0 | 19.0 | 1 | 380 | 19.3 | 380 | 7.0 | 5.42 | | | 145.5 | | | 120.5 | 130.3 | | | |
| 2403 | 90.3 | 117.5 | 252 | 295 | 100.0 | 17.0 | 2 | 540 | 75.9 | 420 | 1.4 | 57.17 | | | 169.0 | | | 182.8 | 179.1 | | | |
| 2404 | 93.0 | 138.7 | 30 | 312 | 96.0 | 30.0 | 2 | 41 | 34.3 | 32 | 41.6 | 7.55 | | | 152.3 | | | 156.2 | 159.8 | | | |
| 2405 | 88.5 | 136.1 | 142 | 295 | 48.0 | 20.0 | 0 | | | | | | | | 143.2 | | | 116.1 | 131.1 | | | |
| 2406 | 88.5 | 149.8 | 31 | 310 | 194.0 | 37.0 | 2 | 37 | 50.2 | | 10.8 | 9.73 | | | 175.2 | | | 158.6 | 162.1 | | | |
| 2407 | 89.7 | 195.9 | 272 | 287 | 26.0 | 15.0 | 2 | 680 | 54.0 | 760 | 18.7 | 31.48 | | | 165.9 | | | 180.7 | 178.9 | | | |
| 2409 | 89.4 | 183.0 | 67 | 307 | 105.0 | 25.0 | 2 | 85 | 67.5 | 265 | 8.4 | 28.23 | | | 163.0 | | | 175.4 | 175.7 | | | |
| 2410 | 93.0 | 192.0 | 17 | 313 | 96.0 | 44.0 | 2 | 21 | 34.0 | 0 | 29.2 | 13.45 | | | 168.6 | | | 165.4 | 165.9 | | | |
| 2411 | 90.7 | 201.1 | 82 | 307 | 99.1 | 30.0 | 2 | 320 | 21.2 | 47 | 20.1 | 13.41 | | | 165.5 | | | 166.5 | 166.3 | | | |
| 2412 | 93.3 | 200.7 | 17 | 313 | 124.0 | 37.0 | 2 | 0 | 46.5 | 41 | 12.0 | 15.46 | | | 176.1 | | | 167.8 | 168.4 | | | |
| 2413 | 90.3 | 46.0 | 82 | 299 | 100.0 | 20.0 | 0 | | | | | | | | 112.0 | | | 102.7 | 118.2 | | | |
| 2414 | 93.0 | 245.9 | 44 | 311 | 103.0 | 26.0 | 2 | 80 | 50.6 | 50 | 43.0 | 21.10 | | | 175.2 | | | 171.8 | 172.0 | | | |
| 2415 | 87.9 | 243.8 | 244 | 293 | 30.0 | 28.0 | 2 | 600 | 99.1 | 563 | 19.4 | 40.02 | | | 174.9 | | | 182.6 | 183.1 | | | |
| 2416 | 88.5 | 256.9 | 236 | 292 | 48.0 | 19.0 | 2 | 155 | 121.8 | 620 | 1.7 | 152.92 | | | 173.6 | | | 202.2 | 209.0 | | | |
| 2417 | 90.5 | 285.7 | 325 | 294 | 33.0 | 24.0 | 2 | 822 | 120.4 | 320 | 7.8 | 40.57 | | | 187.0 | | | 183.9 | 186.3 | | | |
| 2418 | 89.7 | 333.8 | 172 | 308 | 118.0 | 44.0 | 2 | 341 | 71.1 | 6 | 27.3 | 24.71 | | | 175.6 | | | 175.6 | 175.9 | | | |
| 2419* | 93.7 | 431.3 | 39 | 317 | 123.7 | 18.3 | 2 | 46 | 76.4 | 30 | 35.9 | 37.99 | 169.5 | 179.5 | 189.5 | 198.5 | 203.5 | 184.5 | 184.8 | | | |
| 2421 | 89.4 | 77.2 | 545 | 279 | 59.0 | 15.0 | 1 | 630 | 75.4 | 630 | 1.8 | 132.60 | | | 154.4 | | | 144.8 | 143.6 | | | |
| 2422 | 99.0 | 94.4 | 282 | 304 | 57.0 | 25.0 | 2 | 500 | 54.0 | 200 | 1.5 | 30.17 | | | 160.3 | | | 148.6 | 148.6 | | | |
| 2423 | 94.5 | 159.5 | 110 | 309 | 103.0 | 28.0 | 2 | 78 | 58.0 | 195 | 6.0 | 7.91 | | | 169.5 | | | 158.2 | 159.8 | | | |
| 2428 | 92.9 | 228.8 | 146 | 307 | 85.0 | 28.0 | 2 | 222 | 81.6 | 210 | 4.8 | 17.52 | | | 166.7 | 173.2 | | 169.1 | 169.7 | | | |
| 2429 | 92.5 | 285.7 | 308 | 291 | 15.0 | 28.0 | 2 | 755 | 149.1 | 560 | 19.9 | 38.79 | | | 174.7 | 181.7 | | 184.8 | 185.4 | | | |
| 2440* | 6825.0 | 142.6 | 289 | 289 | 17.0 | 39.0 | 0 | | | | | | 151.1 | 154.1 | 158.1 | 174.1 | 180.1 | 146.3 | 161.4 | | | |
| 2441* | 516.0 | 142.6 | 289 | 289 | 15.0 | 44.0 | 0 | | | | | | 126.9 | 134.9 | 140.9 | 146.9 | 150.9 | 125.1 | 142.7 | | | |
| 2442* | 547.0 | 142.6 | 289 | 289 | 18.0 | 37.5 | 0 | | | | | | 137.0 | 141.0 | 146.0 | 150.0 | 151.0 | 124.8 | 143.4 | | | |
| 2443* | 6825.0 | 142.6 | 289 | 289 | 15.0 | 39.0 | 0 | | | | | | 155.9 | 159.9 | 164.5 | | | 146.2 | 161.4 | | | |
| 2444* | 2492.7 | 69.3 | 60 | 305 | 14.0 | 1.0 | 0 | | | | | | 142.2 | 146.2 | 150.2 | 157.2 | 165.2 | 136.7 | 147.7 | | | |
| 2445* | 4165.0 | 69.3 | 60 | 305 | 14.0 | 1.0 | 0 | | | | | | 148.6 | 152.6 | 156.6 | 168.6 | 173.6 | 141.2 | 151.3 | | | |
| 2446* | 6679.0 | 69.3 | 60 | 305 | 14.0 | 1.0 | 0 | | | | | | 137.7 | 143.7 | 147.7 | 152.7 | 157.7 | 146.3 | 154.7 | | | |
| 2475 | 1800.0 | 721.5 | 20 | 361 | 12.2 | 12.2 | 2 | 15 | 1.3 | 477 | 85.6 | 86.34 | 235.0 | 242.6 | 250.4 | 266.0 | | 251.0 | 245.3 | | | |
| 2476 | 409.9 | 806.3 | 50 | 343 | 9.1 | 9.1 | 2 | 880 | 108.3 | 0 | 73.8 | 88.77 | 196.2 | 219.2 | 233.2 | 238.2 | 241.2 | 234.9 | 232.6 | | | |
| 2603 | 430.0 | 230.0 | 0 | 320 | | | 2 | 0 | 16.4 | 0 | 16.4 | 22.36 | | | 178.5 | | | 191.8 | 191.4 | | | |
| 2632* | 2170.0 | 325.1 | 128 | 310 | 15.0 | 15.0 | 2 | 80 | 30.1 | 200 | 20.2 | 34.57 | | | 212.6 | 216.6 | 230.5 | 222.5 | 220.4 | | | |
| 2633* | 2170.0 | 325.1 | 128 | 310 | 15.0 | 15.0 | 2 | 80 | 30.1 | 200 | 20.2 | 34.57 | 204.8 | 211.4 | 219.8 | 228.4 | 233.6 | 222.5 | 220.4 | | | |
| 2634* | 2170.0 | 325.1 | 128 | 310 | 8.0 | 15.0 | 2 | 80 | 30.1* | 200 | 20.2 | 34.82 | | | 215.2 | 223.1 | 231.3 | 222.7 | 220.5 | | | |
| 2635* | 2170.0 | 325.1 | 128 | 310 | 8.0 | 15.0 | 2 | 80 | 30.1 | 200 | 20.2 | 34.82 | 207.5 | 214.0 | 222.0 | 230.0 | 234.6 | 222.7 | 220.5 | | | |
| 2636* | 2170.0 | 159.9 | 102 | 312 | 15.0 | 15.0 | 2 | 80 | 30.1 | 130 | 11.1 | 9.03 | | | 194.6 | 202.7 | 208.9 | 197.1 | 196.1 | | | |
| 2637* | 2170.0 | 159.9 | 102 | 312 | 8.0 | 15.0 | 2 | 80 | 30.1 | 130 | 11.1 | 9.27 | 189.4 | 196.3 | 203.0 | 209.6 | 213.4 | 197.4 | 196.4 | | | |
| 2638* | 2170.0 | 483.1 | 168 | 311 | 8.0 | 15.0 | 2 | 80 | 30.1 | 140 | 9.4 | 57.79 | 222.4 | 229.2 | 235.1 | | | 237.6 | 234.6 | | | |
| 2639* | 217.0 | 483.1 | 168 | 311 | 15.0 | 15.0 | 2 | 80 | 30.1 | 140 | 9.4 | 56.43 | 220.4 | 227.5 | 234.4 | 240.7 | | 237.5 | 234.5 | | | |
| 2644 | 159.0 | 79.5 | 0 | 318 | 30.0 | 20.0 | 2 | 0 | 44.9 | 0 | 18.7 | 1.79 | 121.5 | 128.3 | 137.1 | 141.2 | 144.5 | 144.4 | 144.9 | | | |
| 2645 | 468.0 | 79.5 | 0 | 318 | 30.0 | 20.0 | 2 | 0 | 44.9 | 0 | 18.7 | 1.79 | | | 133.7 | 148.4 | 153.1 | 152.5 | 153.4 | | | |
| 2646 | 3150.0 | 75.0 | 0 | 317 | 30.0 | 30.0 | 1 | 106 | 16.5 | 106 | 58.5 | | 138.9 | 154.8 | 159.9 | 163.8 | 168.2 | 155.9 | | | | |
| 2647 | 175.4 | 200.0 | 0 | 320 | 10.0 | 2 | 0 | 110.6 | 0 | 32.5 | 6.43 | | 120.1 | 135.8 | 159.1 | 172.5 | | 166.0 | 162.6 | | | |
| 2648 | 493.8 | 200.0 | 0 | 320 | 10.0 | 2 | 0 | 110.6 | 0 | 32.5 | 6.43 | | 129.5 | 140.6 | 172.2 | 182.0 | | 183.4 | 173.9 | | | |
| 2649 | 41.2 | 517.0 | 0 | 320 | 10.0 | 2 | 0 | 131.3 | 0 | 32.5 | 40.03 | | 146.9 | 164.5 | 175.7 | | | 175.1 | 179.9 | | | |
| 2650 | 679.3 | 517.0 | 0 | 320 | 10.0 | 2 | 0 | 131.3 | 0 | 32.5 | 40.03 | | 148.7 | 169.6 | 206.0 | | | 212.8 | 212.8 | | | |
| 2651 | 524.7 | 558.0 | 0 | 320 | 10.0 | 2 | 0 | 135.5 | 0 | 32.5 | 44.20 | | 145.8 | 166.5 | 200.3 | | | 214.1 | 212.6 | | | |
| 2705 | 80.3 | 179.0 | 0 | 365 | | | 2 | 0 | 86.8 | 0 | 89.0 | 0.32 | | | 147.6 | 152.6 | 158.6 | 163.6 | 130.5 | 123.6 | | |
| 2800 | 77.5 | 321.9 | 0 | 320 | 0.1 | 0.0 | 2 | 0 | 103.7 | 0 | 187.0 | 4.49 | | | 132.2 | 144.2 | 162.2 | 143.8 | 145.8 | | | |
| 2801 | 174.0 | 321.9 | 0 | 320 | 0.1 | 0.0 | 2 | 0 | 103.7 | 0 | 187.0 | 4.49 | | | 136.0 | 149.0 | | 153.7 | 156.0 | | | |

*PATH PROFILE AND TRANSMISSION LOSS DISTRIBUTION ARE SHOWN IN FIGURES FOLLOWING THIS TABLE.

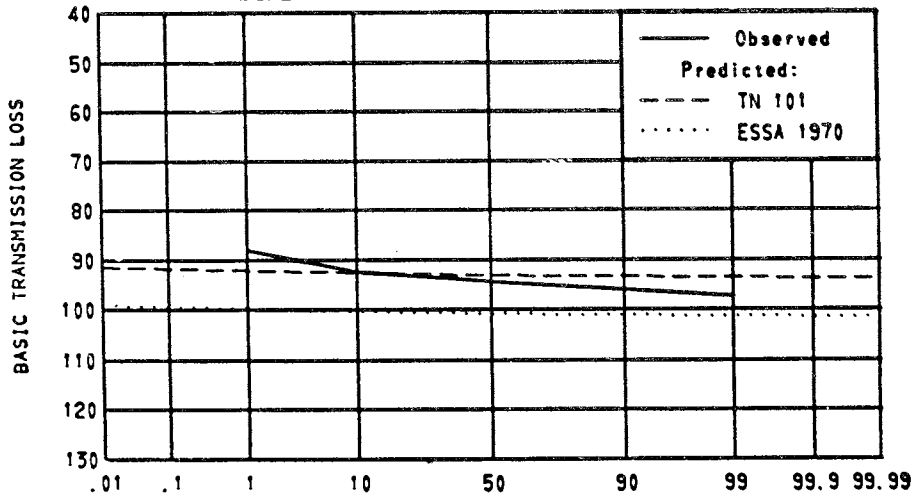
PART 1
Line of Sight Paths

| | <u>Figure Nos.</u> |
|-------------------|--------------------|
| A. United States | 1.1 to 1.14 |
| B. United Kingdom | 1.15 to 1.24 |
| C. Japan | 1.25 to 1.29 |
| D. West Germany | 1.30 to 1.37 |
| E. Other | 1.38 |

PATH 187 TO 191 CLAUSEN SITE FLA - EGLIN MAIN BASE FLA



PATH 187 D = 11.9 km F = 40.5 MHz



PATH 188 D = 11.9 km F = 75.5 MHz

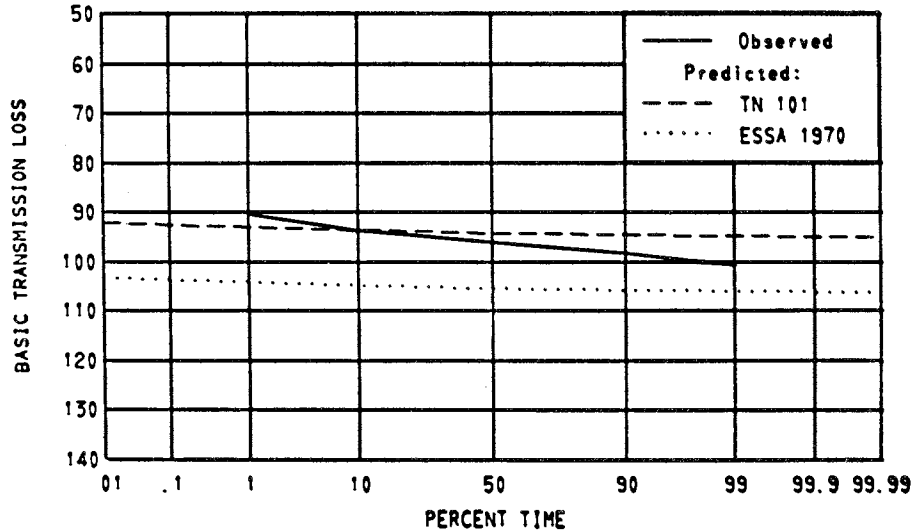


Figure 1.1 Paths 187 188

CLAUSEN SITE FLA - EGLIN MAIN BASE FLA

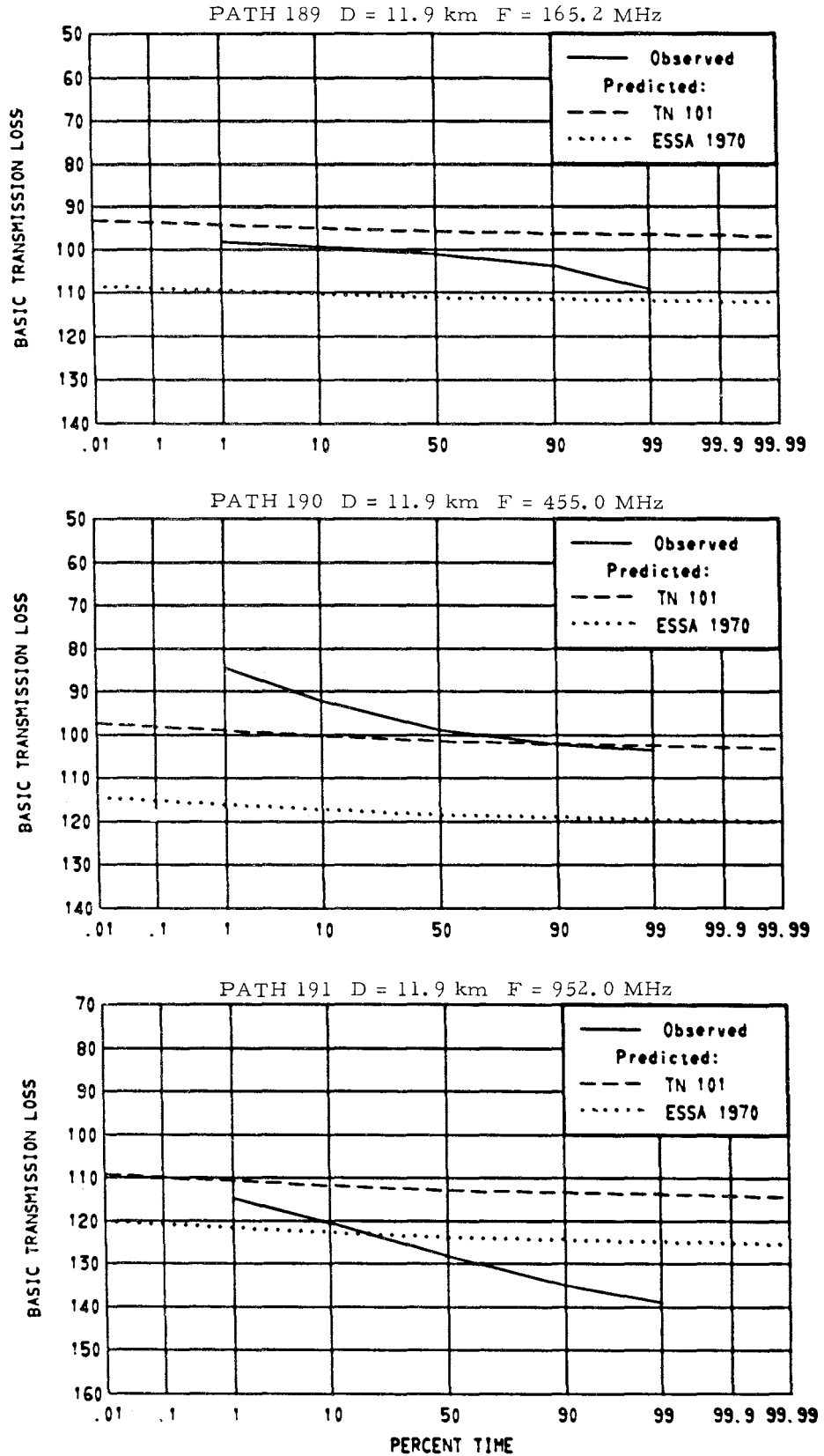


Figure 1.2 Paths 189 190 191

PATH 192 TO 196 COUPLAND TOWER FLA - EGLIN MAIN BASE FLA

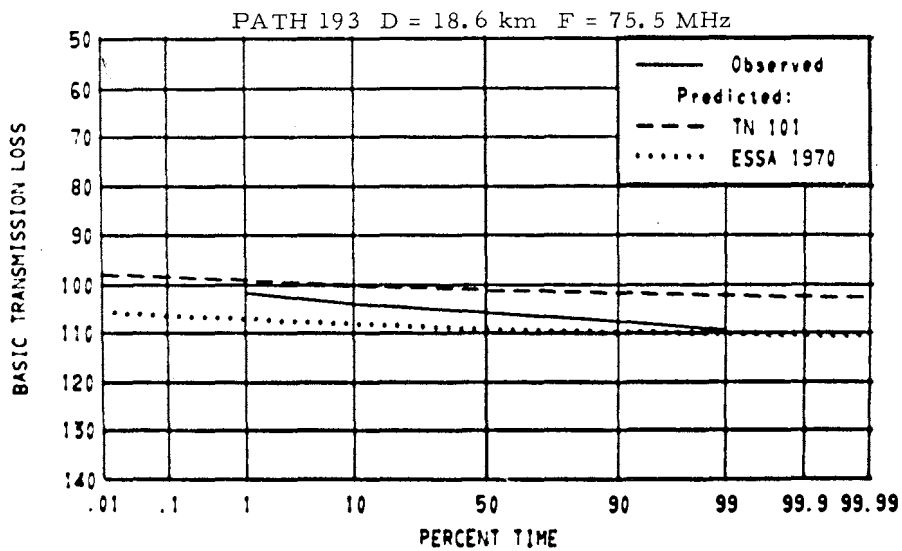
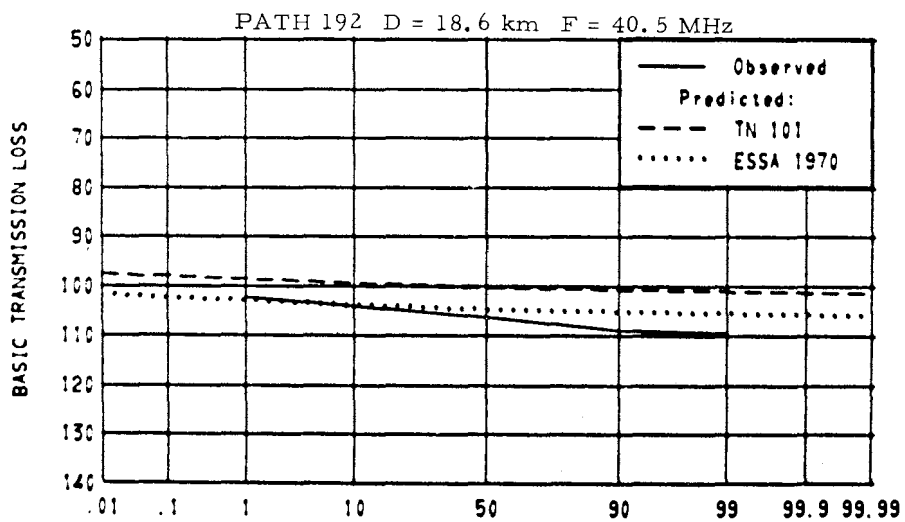
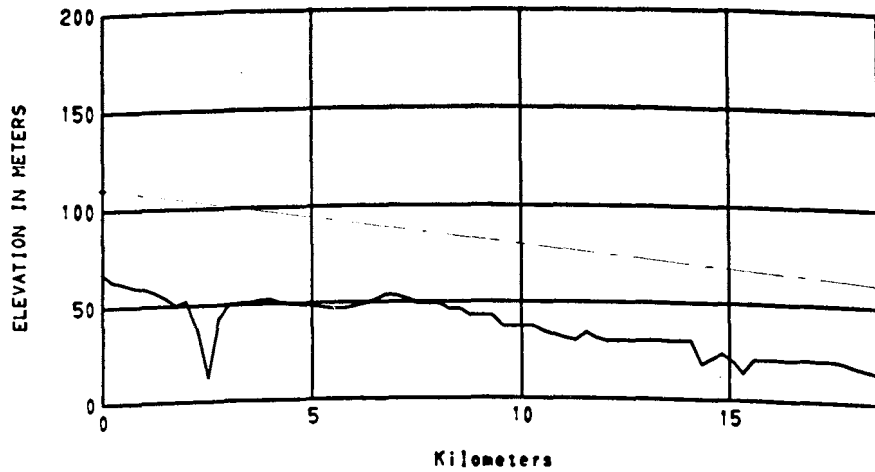


Figure 1.3 Paths 192 193

COUPLAND TOWER FLA - EGLIN MAIN BASE FLA

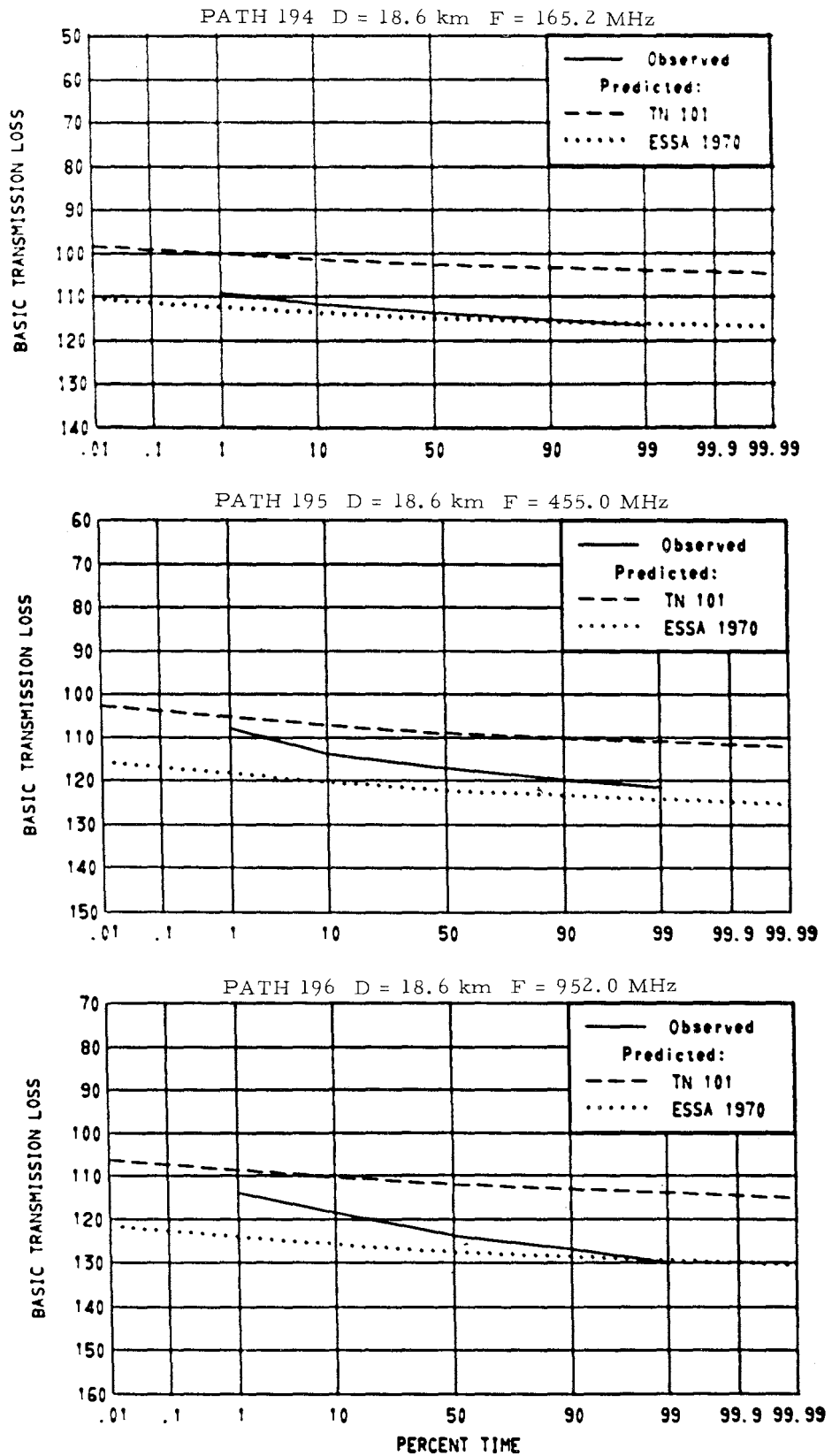
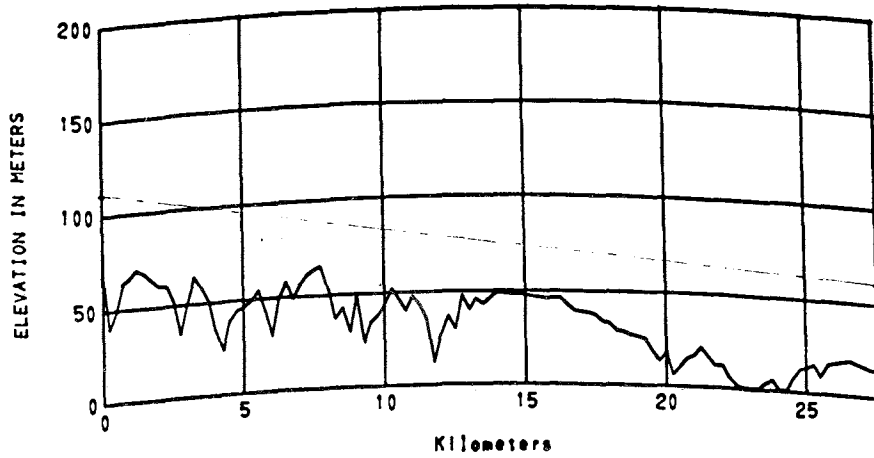
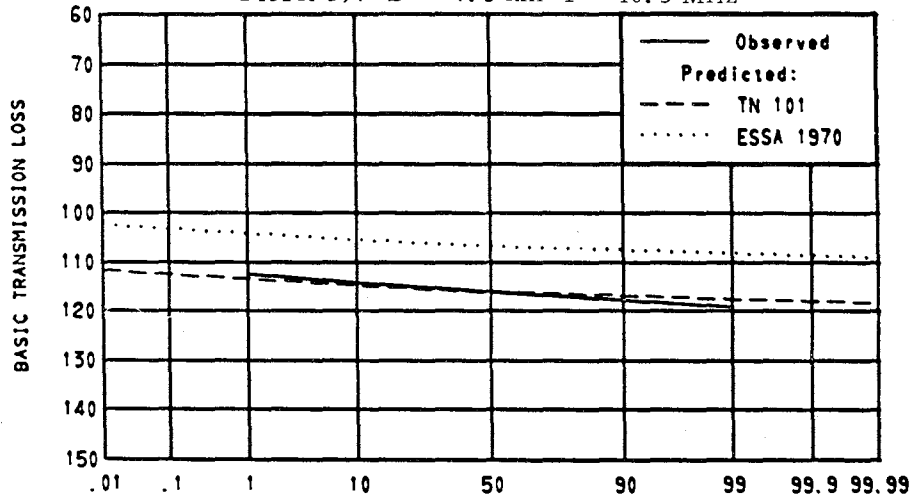


Figure 1.4 Paths 194 to 196

WAGNER SITE FLA - EGLIN MAIN BASE FLA
 PATHS 197 TO 199, 1800 1801



PATH 197 D = 27.5 km F = 40.5 MHz



PATH 198 D = 27.5 km F = 75.5 MHz

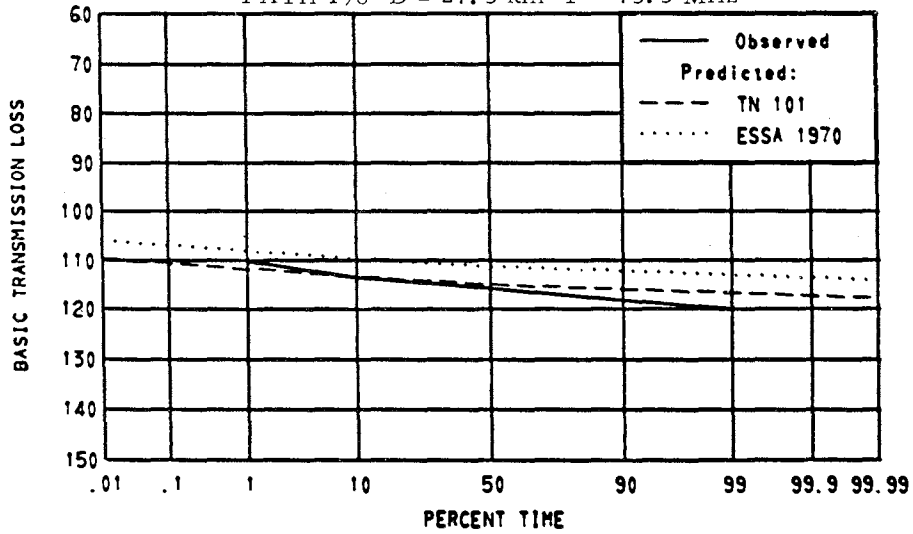


Figure 1.5 Paths 197 198

WAGNER SITE FLA - EGLIN MAIN BASE FLA

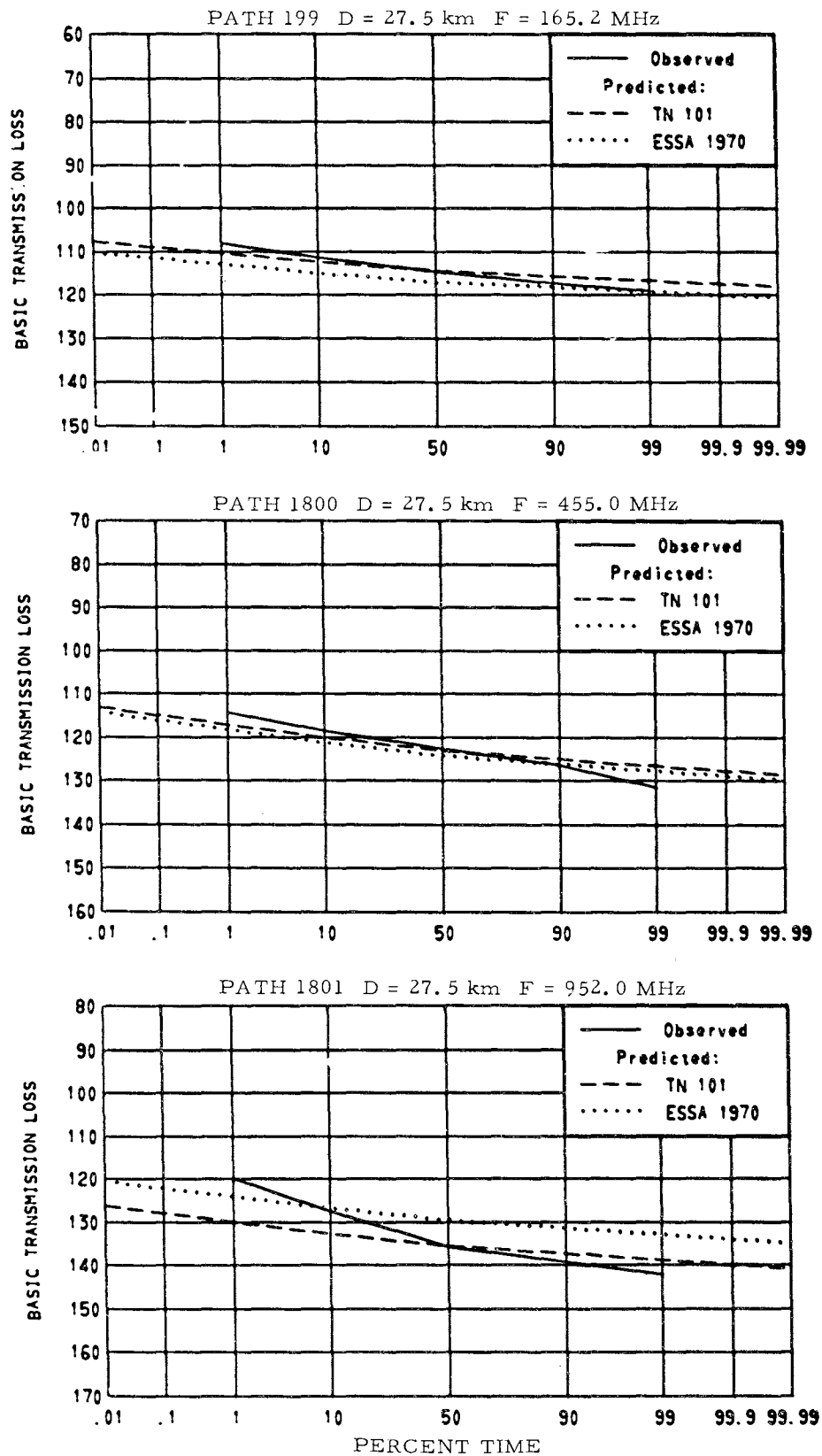


Figure 1.6 Paths 199 1800 1801

CHEYENNE MTN S COLO - KENDRICK COLO
 PATHS 250 270 290 310

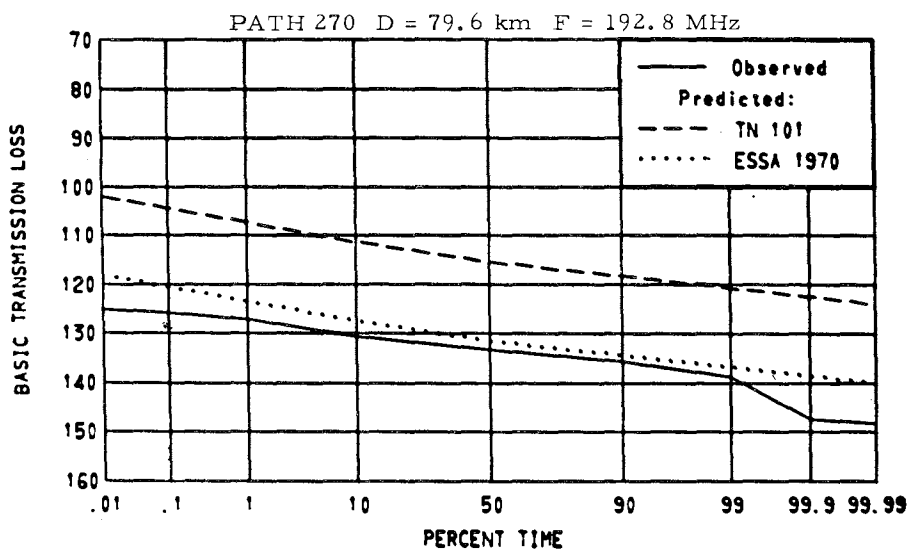
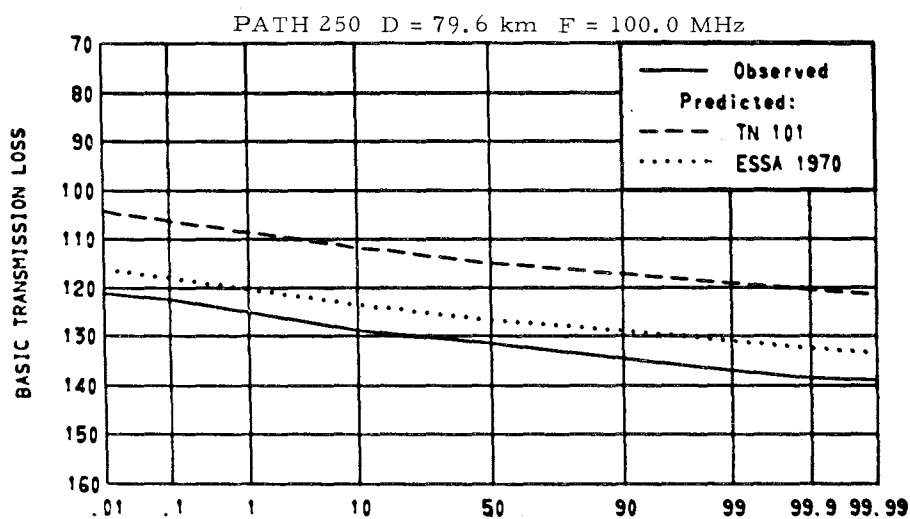
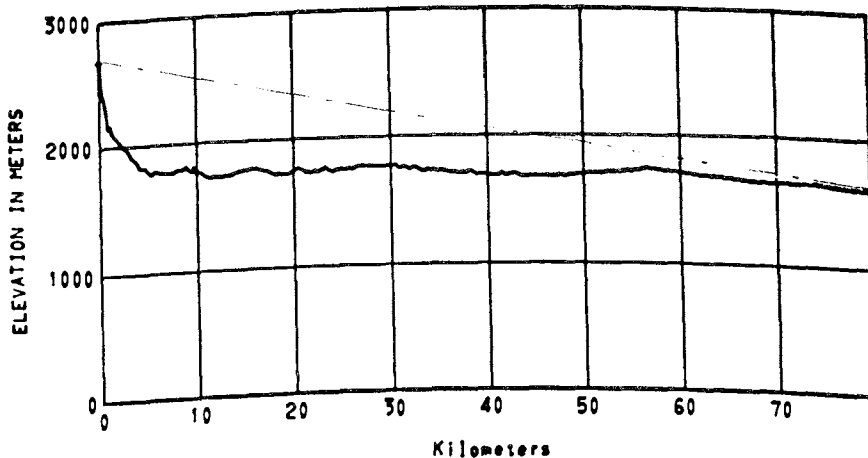
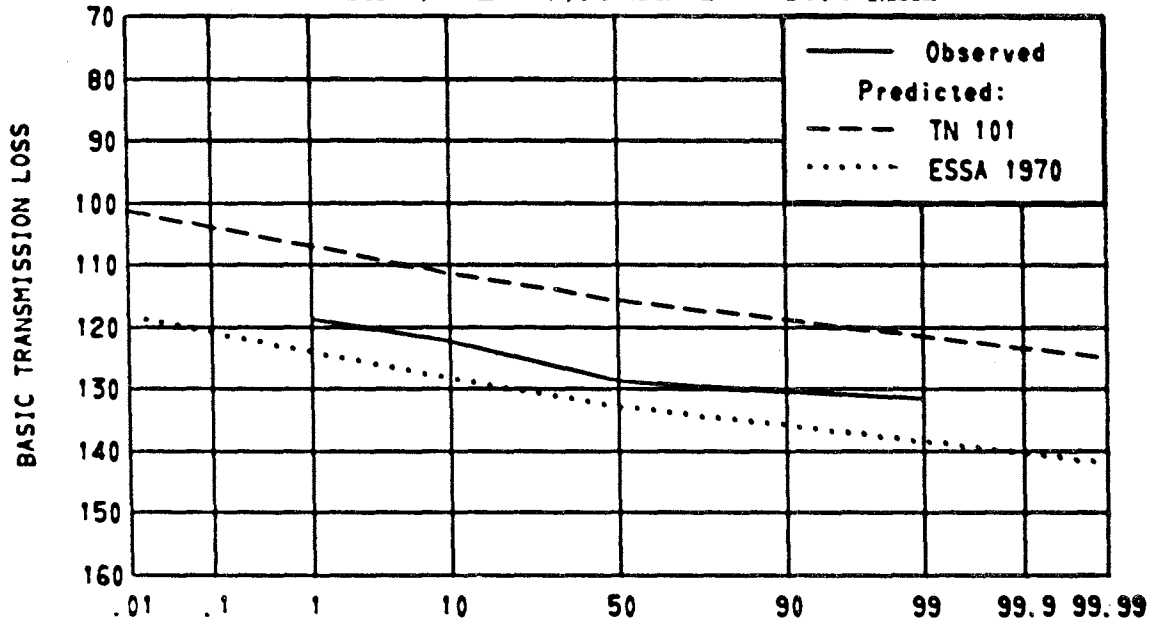


Figure 1.7 Paths 250 270

CHEYENNE MTNS COLO - KENDRICK COLO

PATH 290 D = 79.6 km F = 230.0 MHz



PATH 310 D = 79.6 km F = 1046.0 MHz

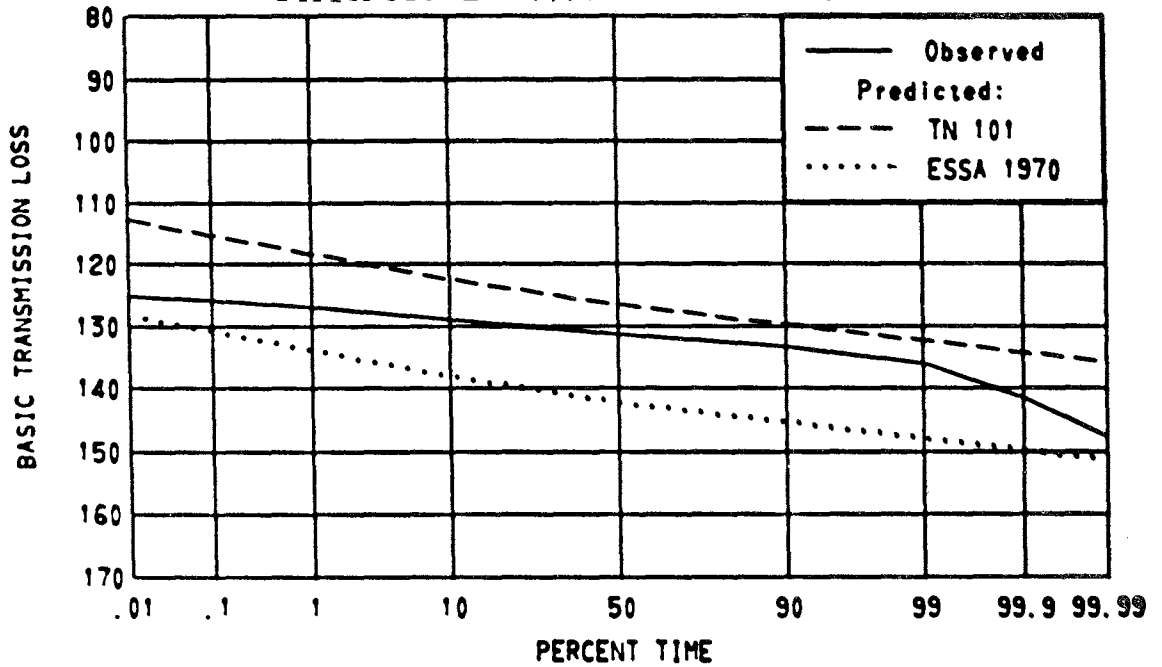
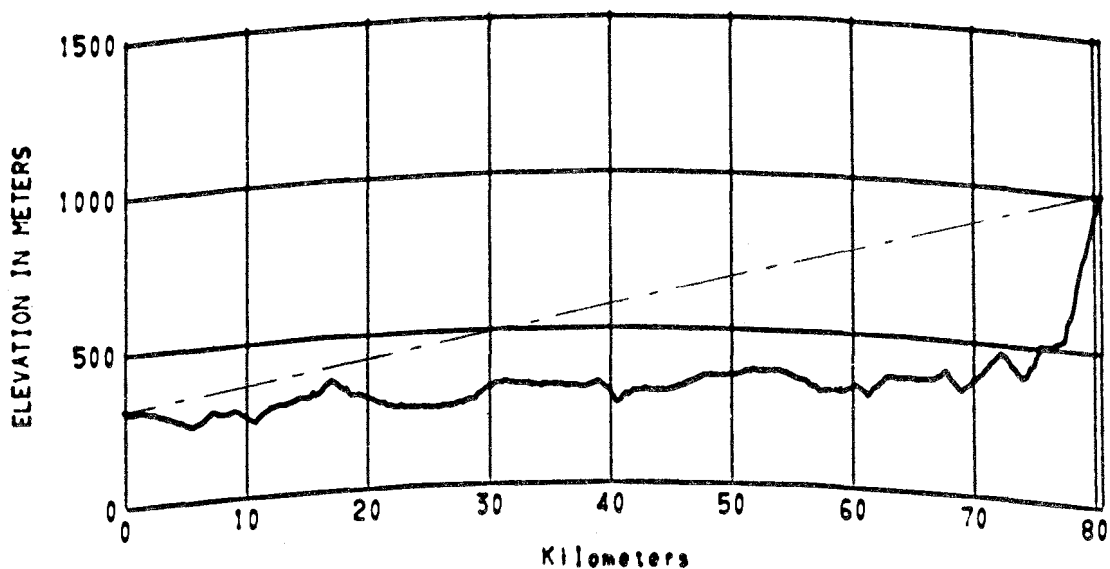


Figure 1.8 Paths 290 310

PATHS 447 TO 449 GEORGIA TECH GA - MT OGLETHORPE GA



PATH 449 D = 80.5 km F = 1310.0 MHz

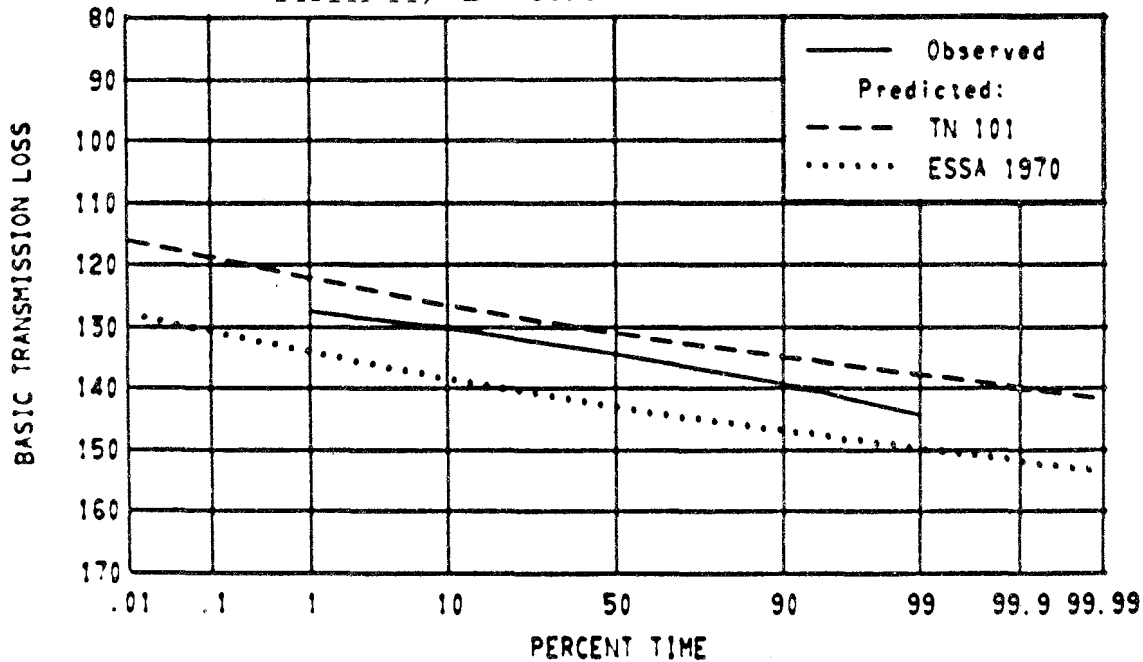


Figure 1.9 Path 449

GEORGIA TECH GA - MT OGLETHORPE GA

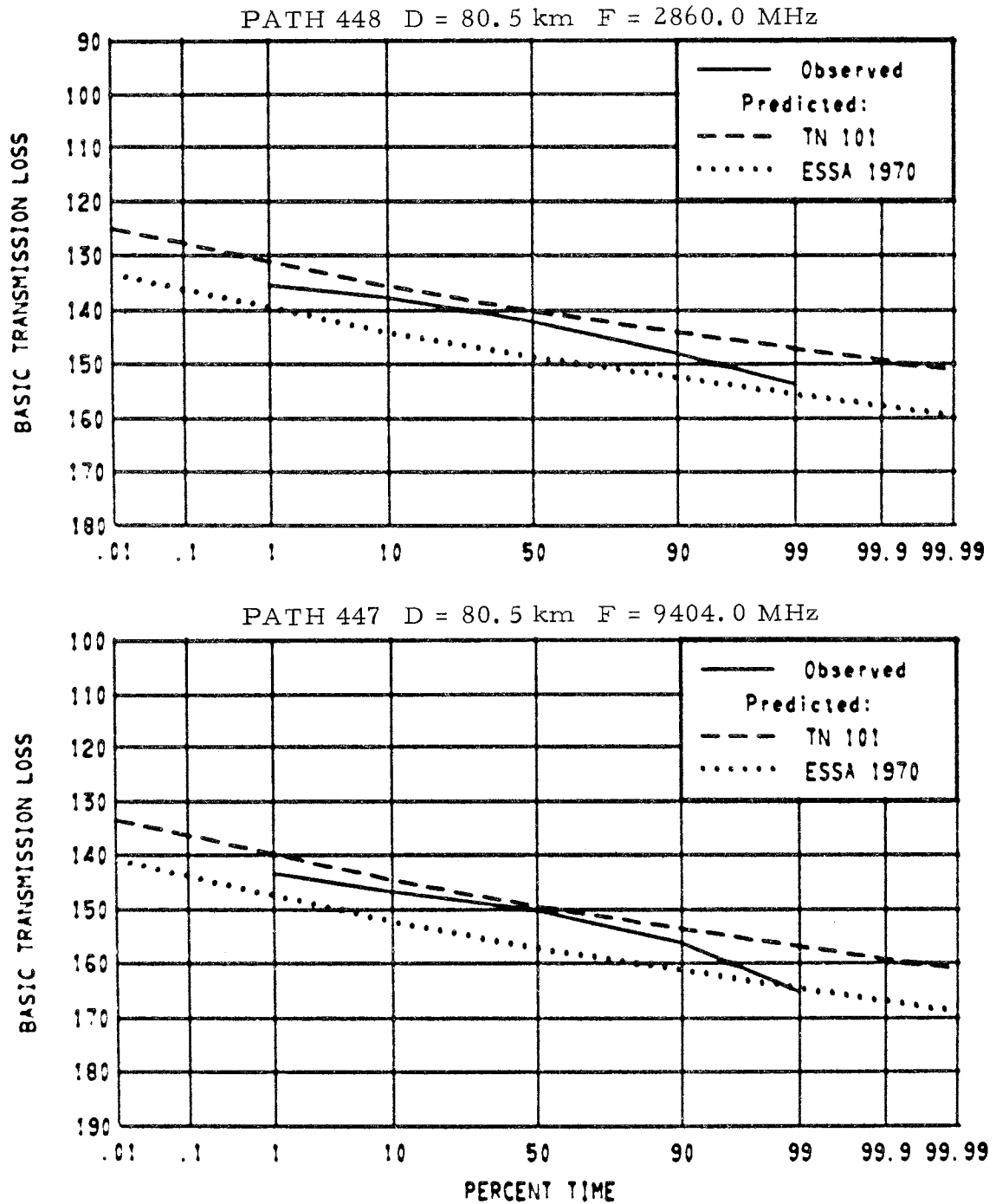
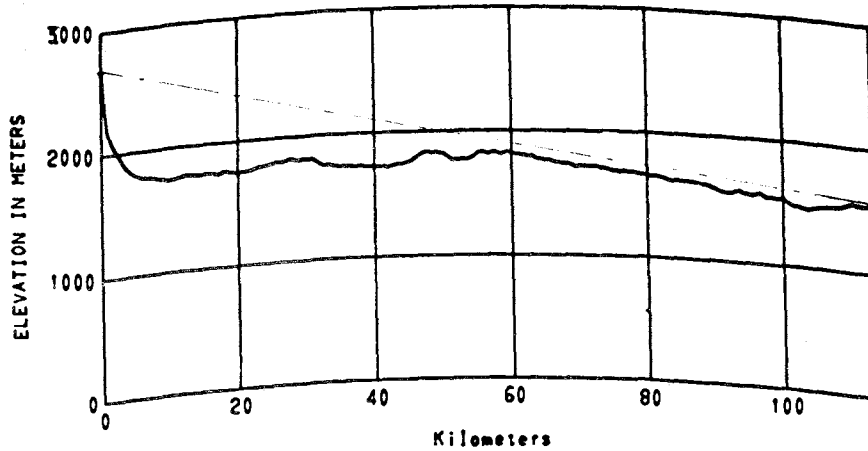
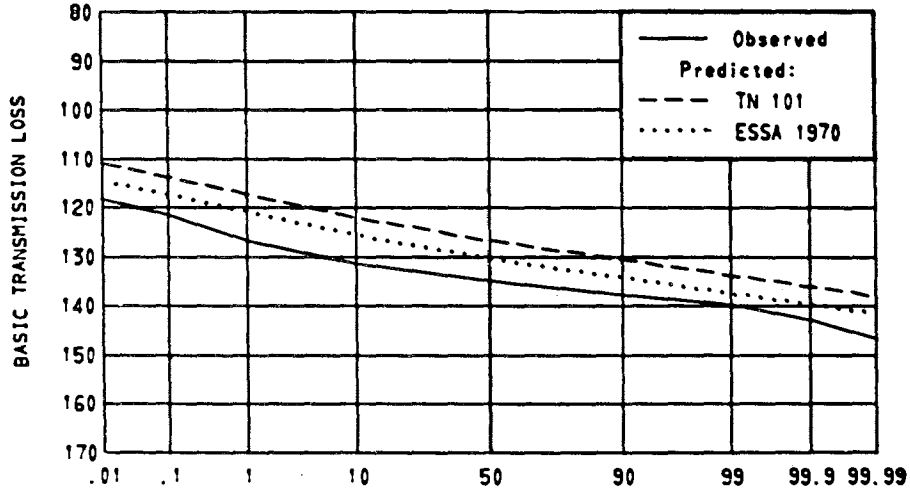


Figure 1.10 Paths 447 448

CHEYENNE MTNS COLO - KARVAL COLO
 PATHS 252 266 TO 268,272 292 298 311 TO 313



PATH 252 D = 113.0 km F = 100.0 MHz



PATH 272 D = 113.0 km F = 192.8 MHz

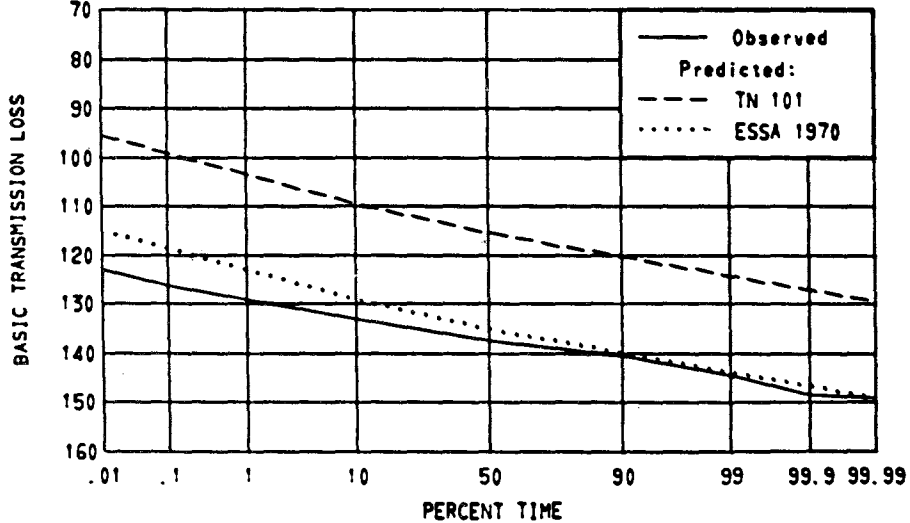


Figure 1.11 Paths 252 272

CHEYENNE MTN S COLO - KARVAL COLO

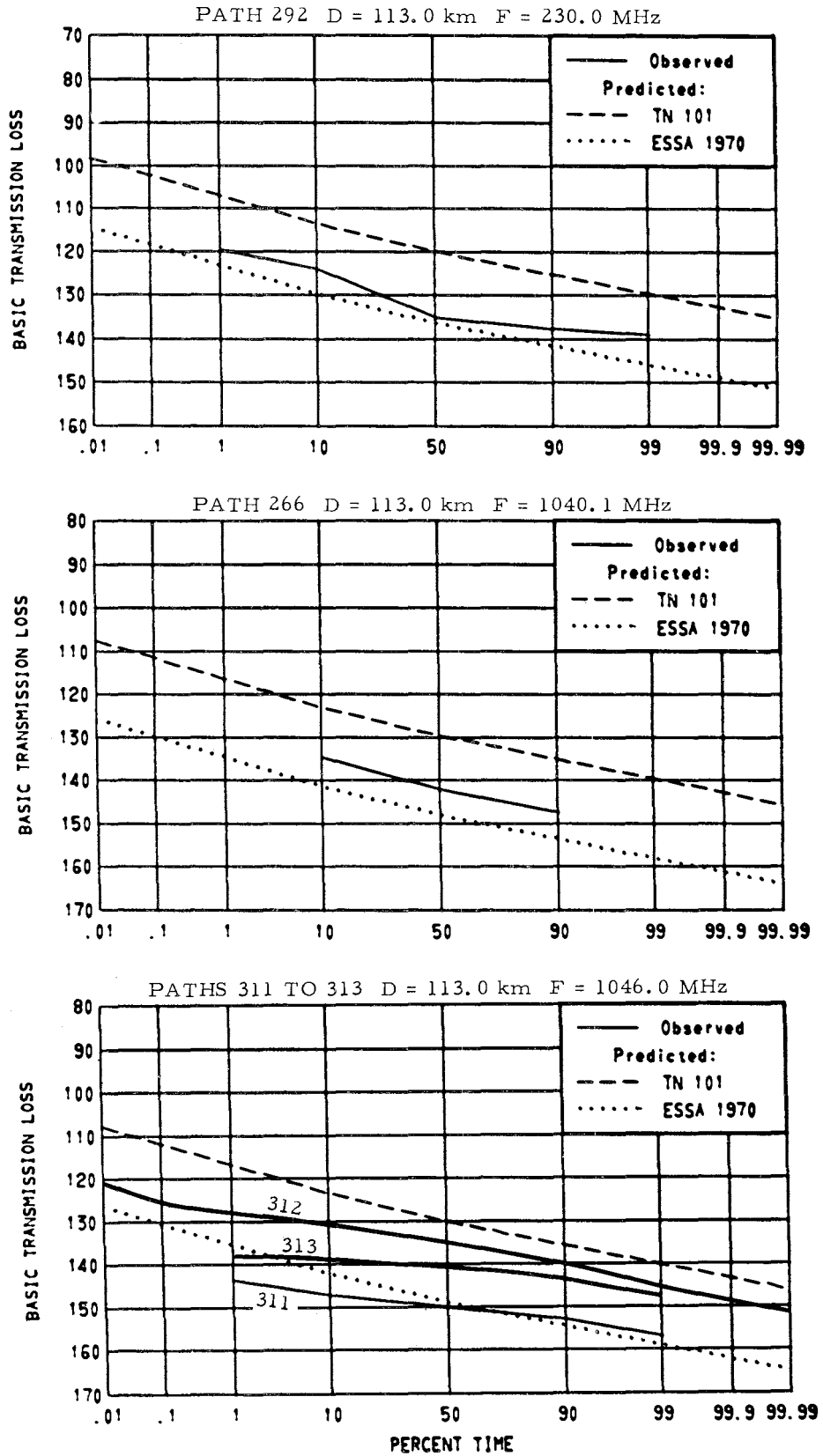


Figure 1.12 Paths 266 292 311 to 313

CHEYENNE MTNS COLO - KARVAL COLO

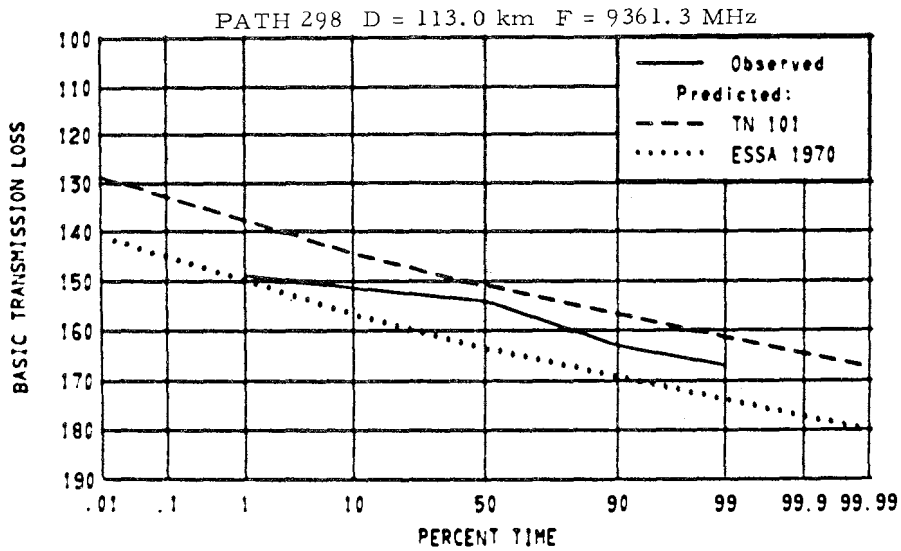
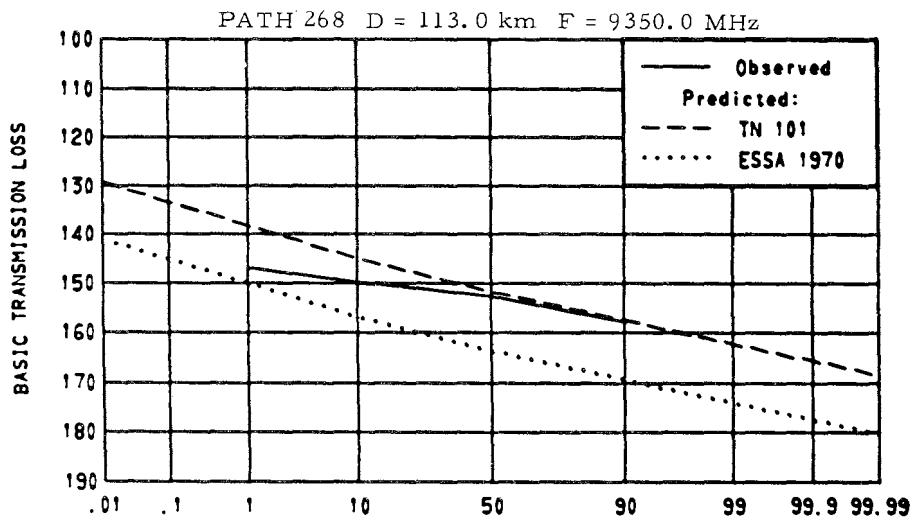
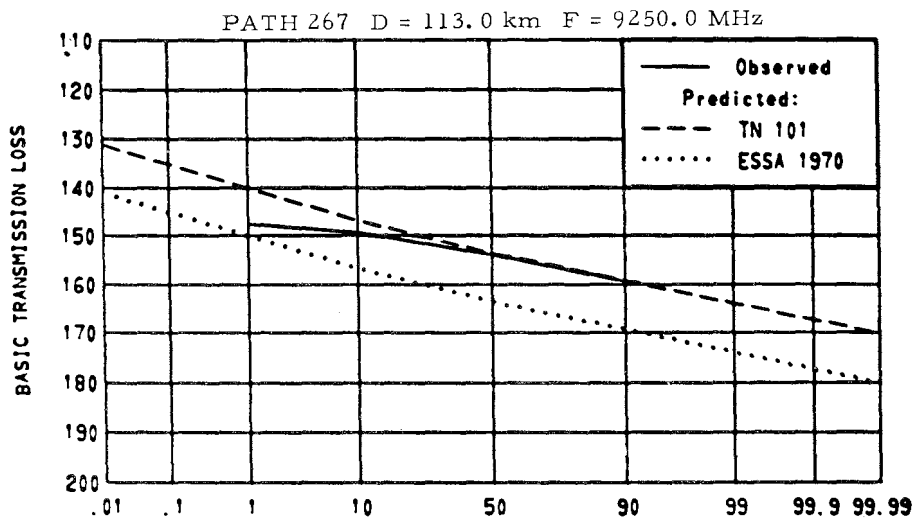


Figure 1.13 Paths 267 268 298

PATHS 299 300 PIKES PEAK COLO - GUN BARREL HILL COLO

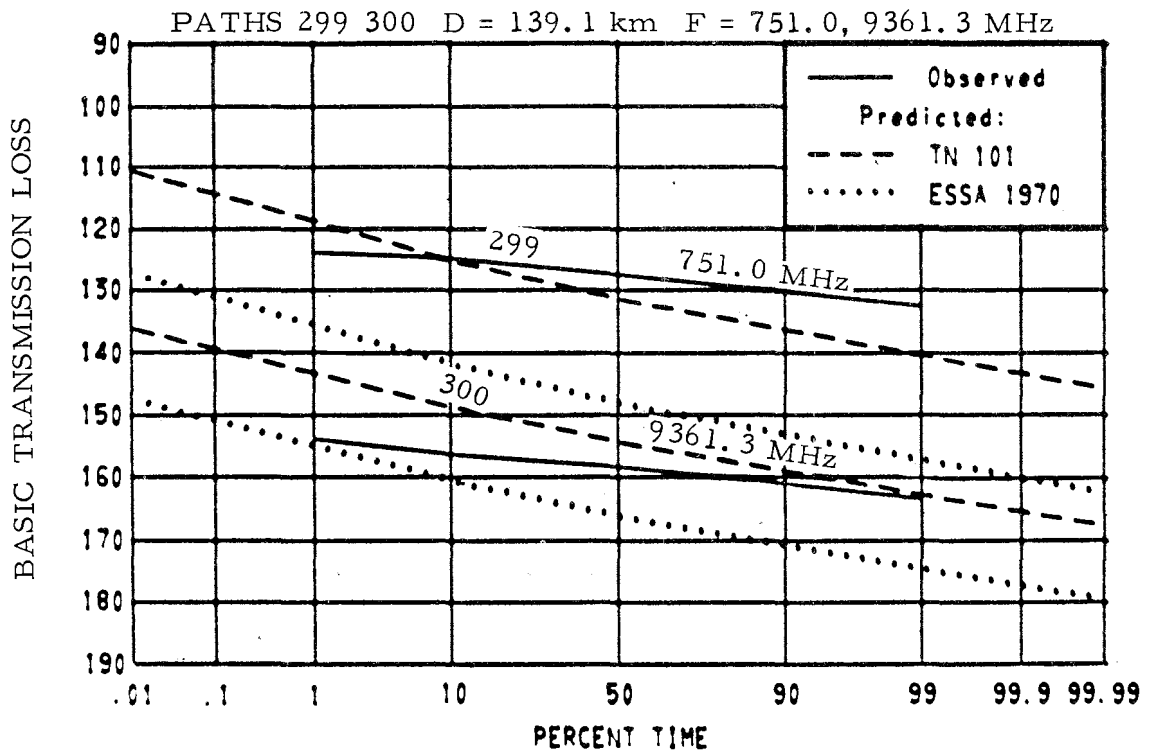
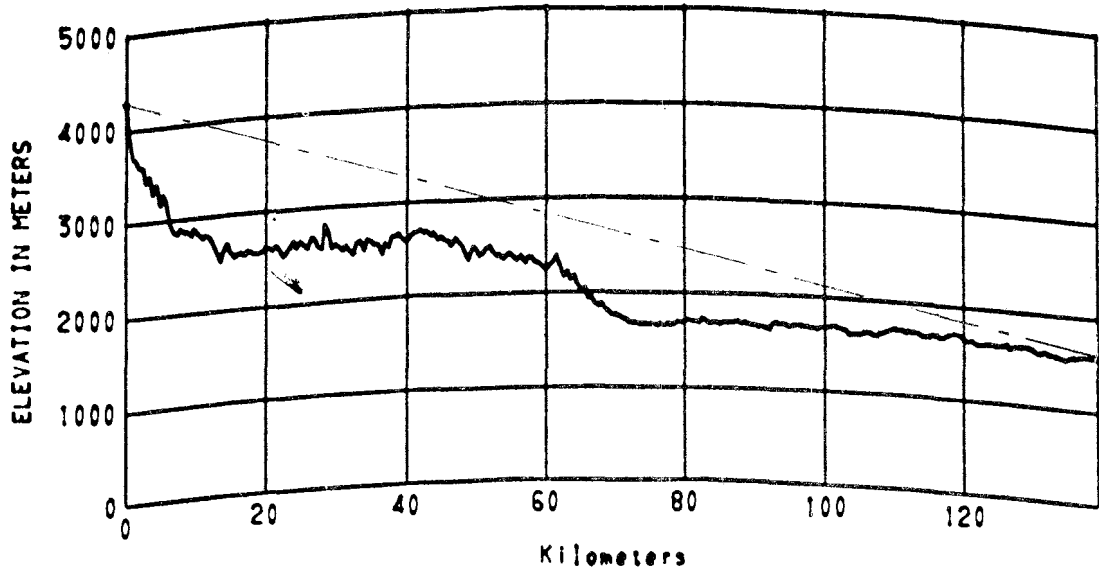
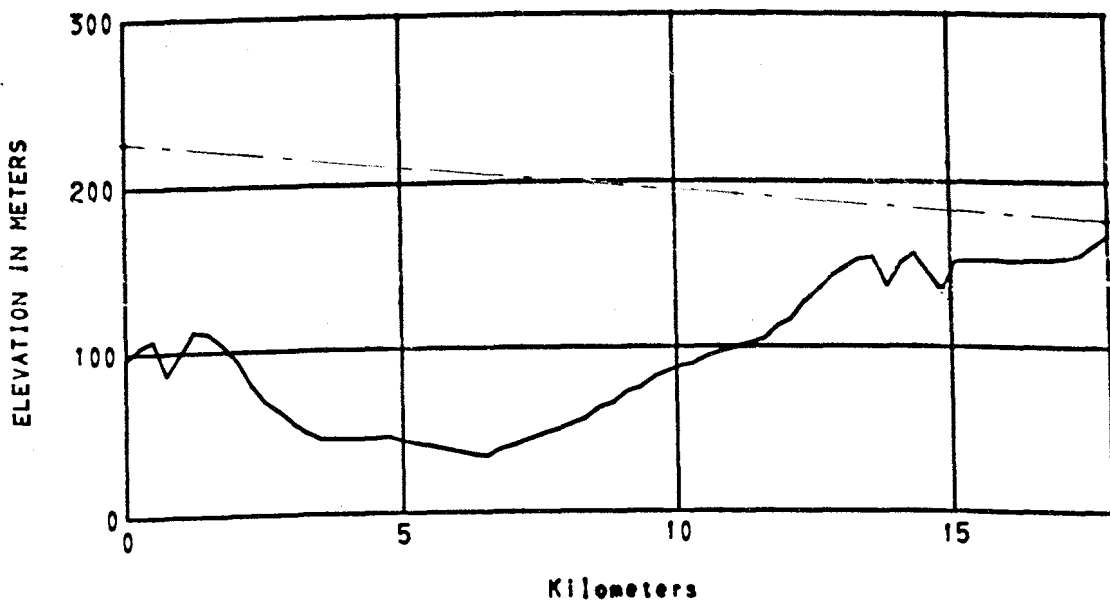


Figure 1.14 Paths 299 300

CRYSTAL PALACE ENG - KINGSWOOD ENG
 PATHS 2197 2198 2214



PATH 2197 D = 17.9 km F = 41.5 MHz

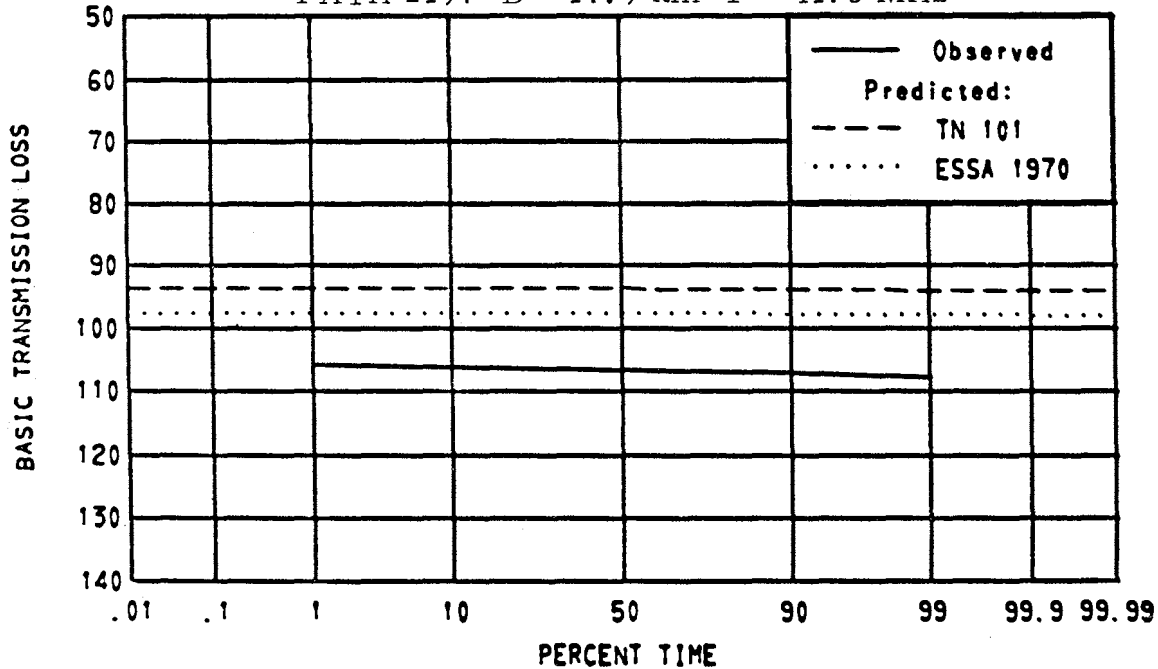


Figure 1.15 Path 2197

CRYSTAL PALACE ENG - KINGSWOOD ENG

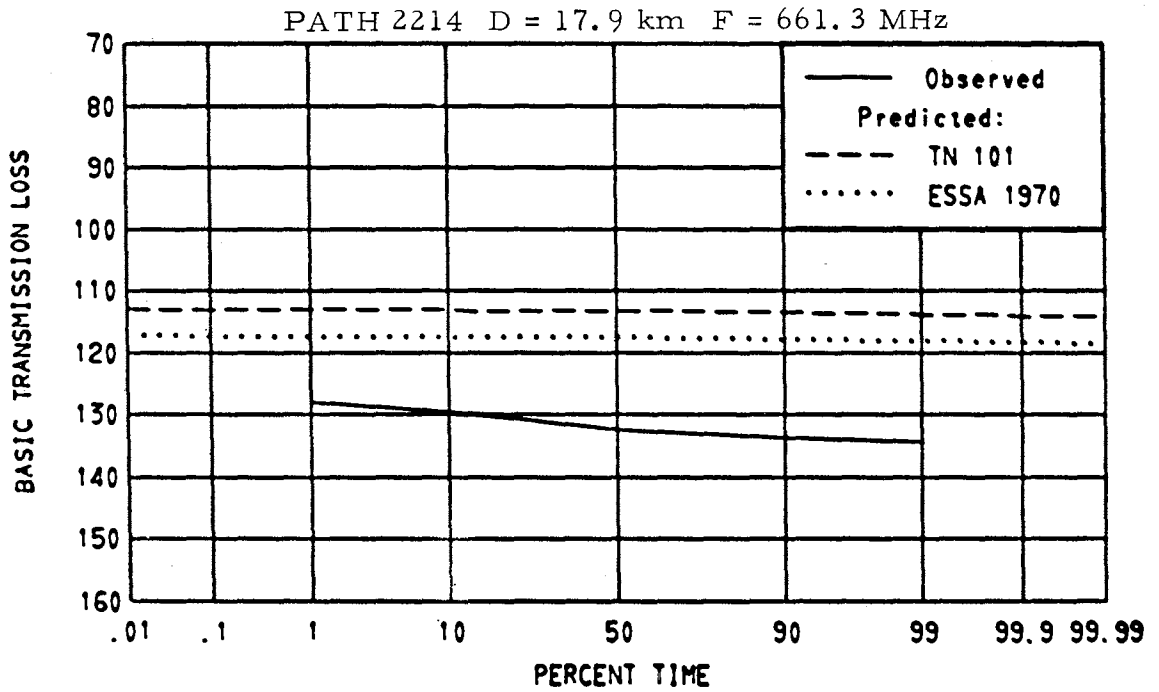
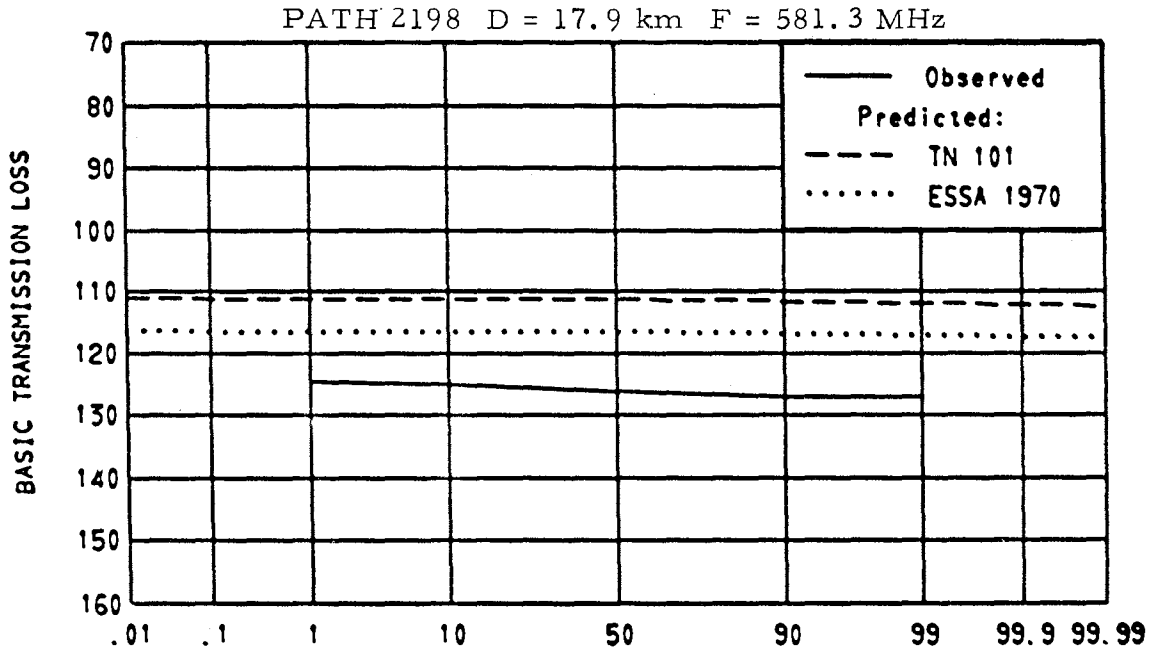


Figure 1.16 Paths 2198 2214

PATH 2134 THROCKING ENG - STANMORE ENG

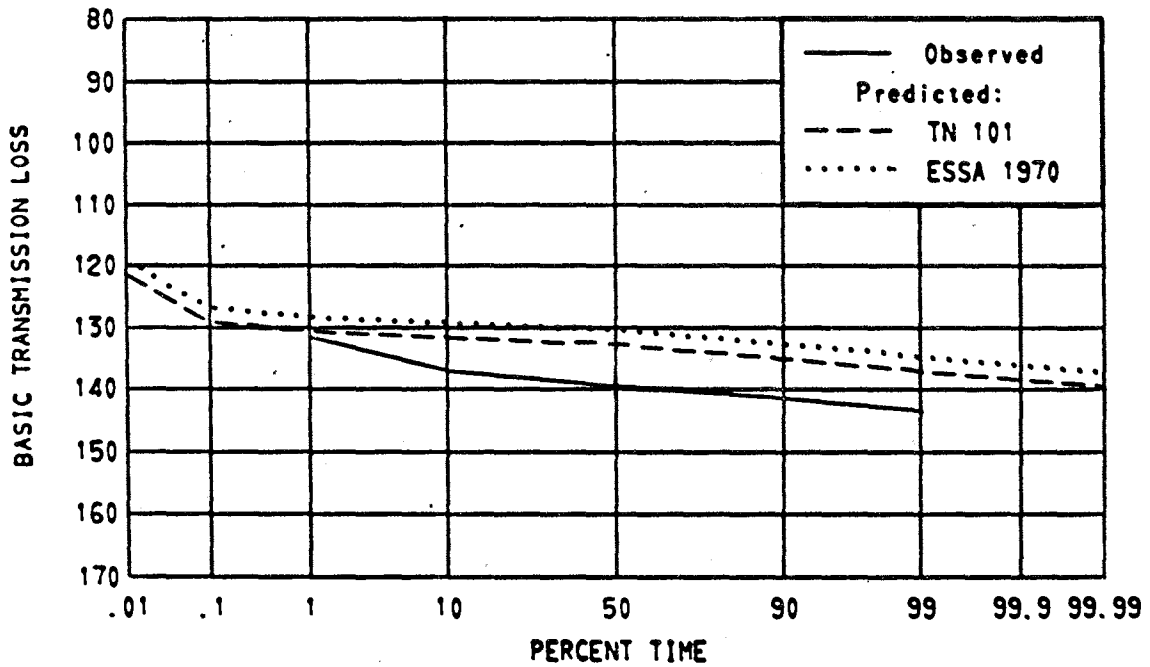
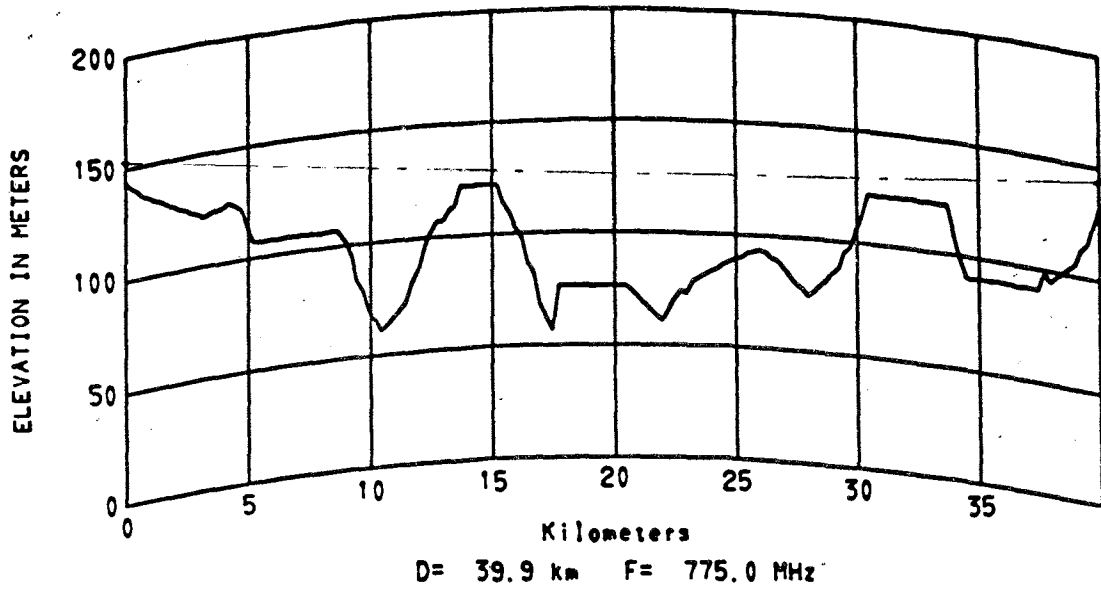


Figure 1.17 Path 2134

PATHS 1978 2090 CRYSTAL PALACE ENG - CAVERSHAM ENG

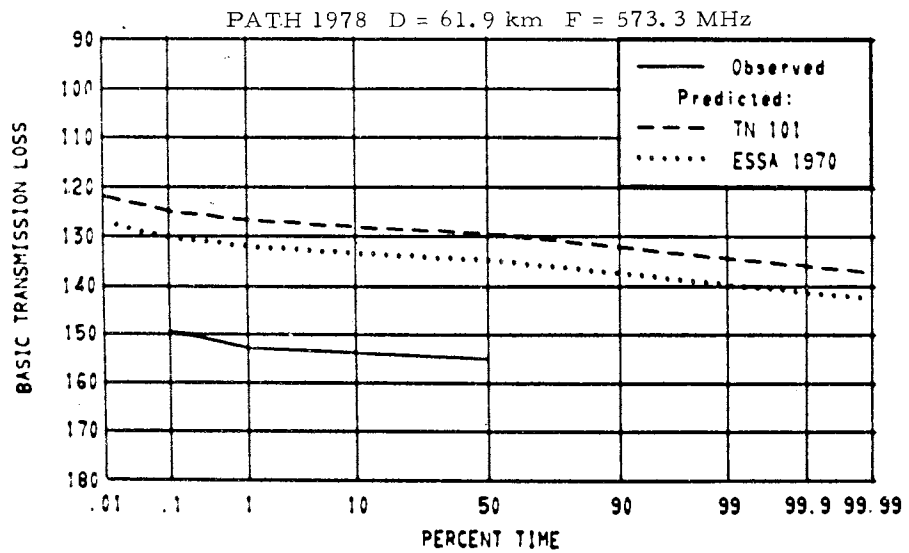
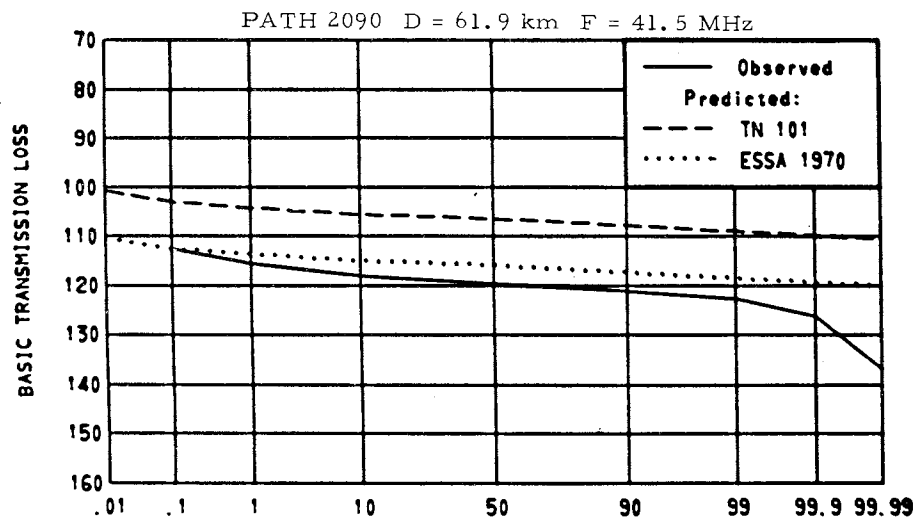
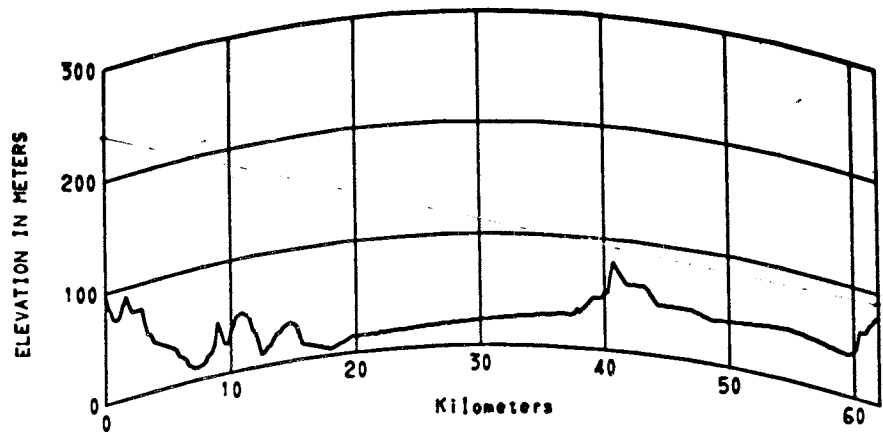


Figure 1.18 Paths 1978 2090

PATH 2129 HOUGHAM ENG - JAYWICK ENG

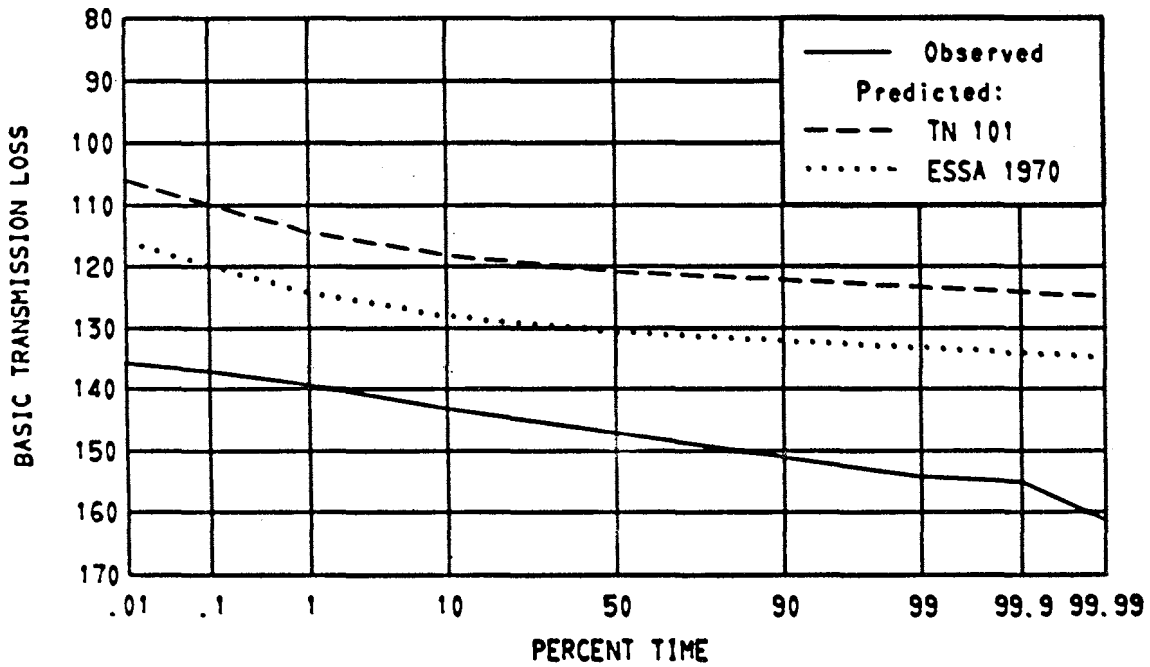
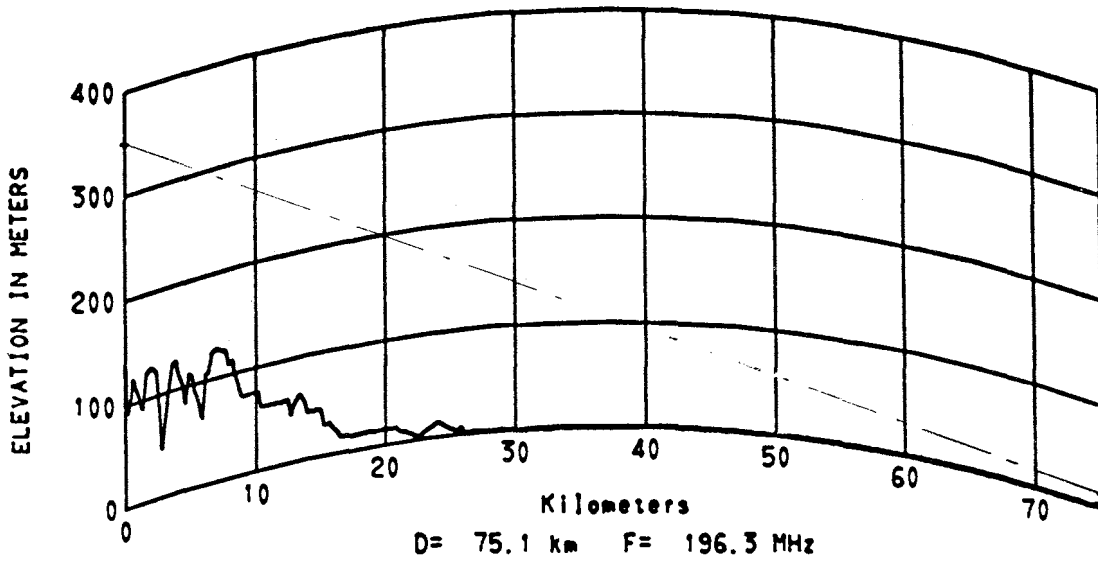


Figure 1.19 Path 2129

PATH 2100 PONTOP PIKE ENG - DISHFORTH ENG

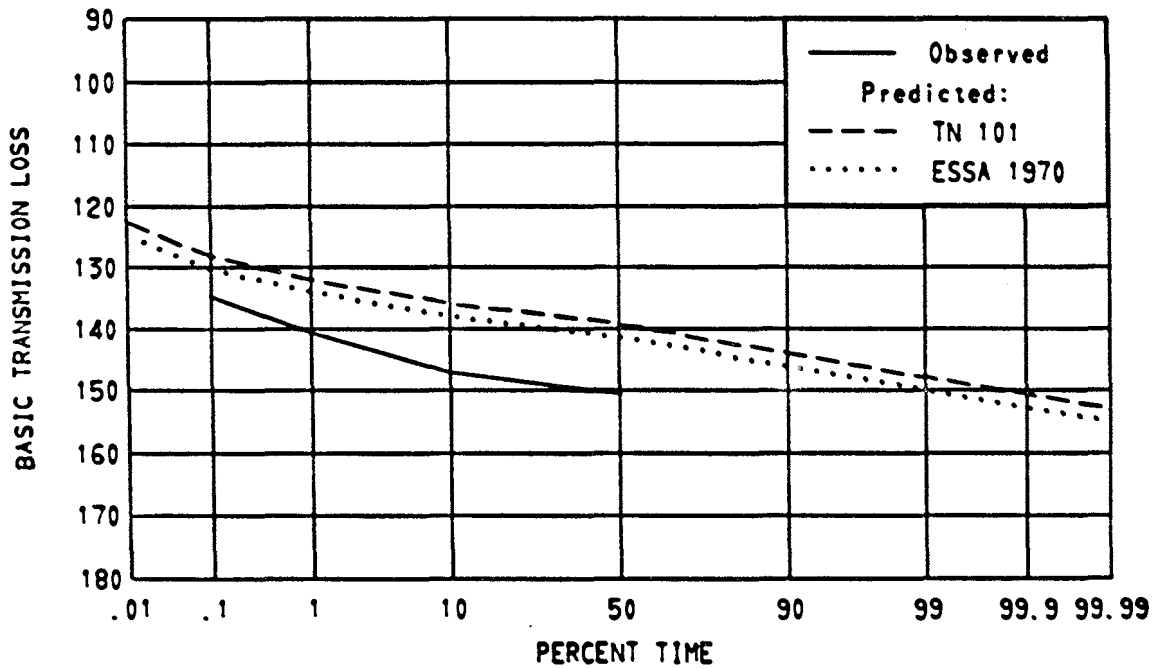
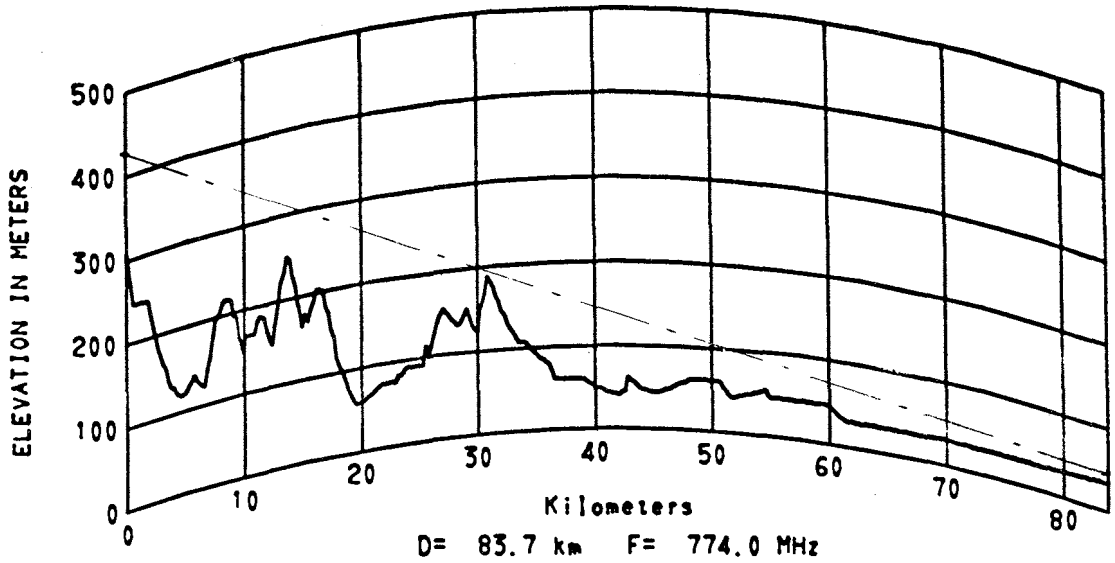


Figure 1.20 Path 2100

PATH 2136 DOUGLAS ISLE OF MAN - HOLYHEAD WALES

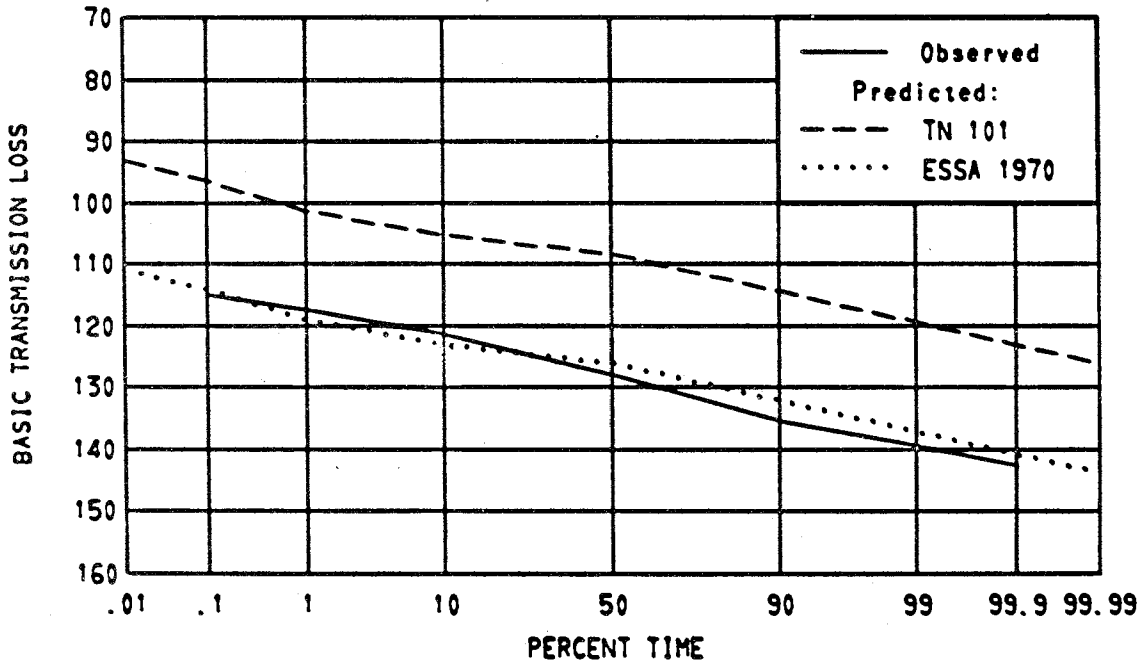
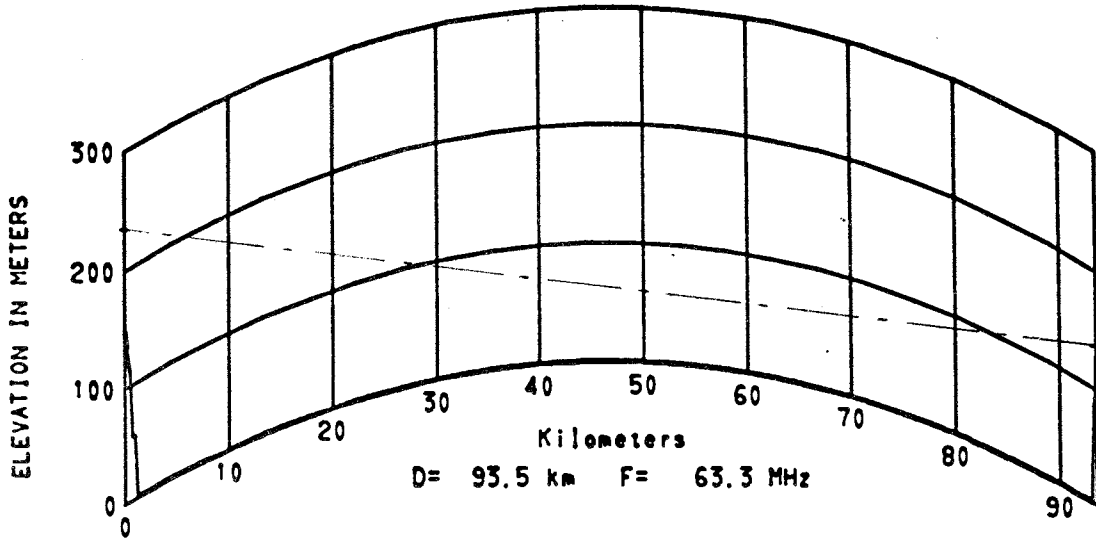


Figure 1.21 Path 2136

PATH 2137 HOLME MOSS ENG - ARNCLIFFE WOOD ENG

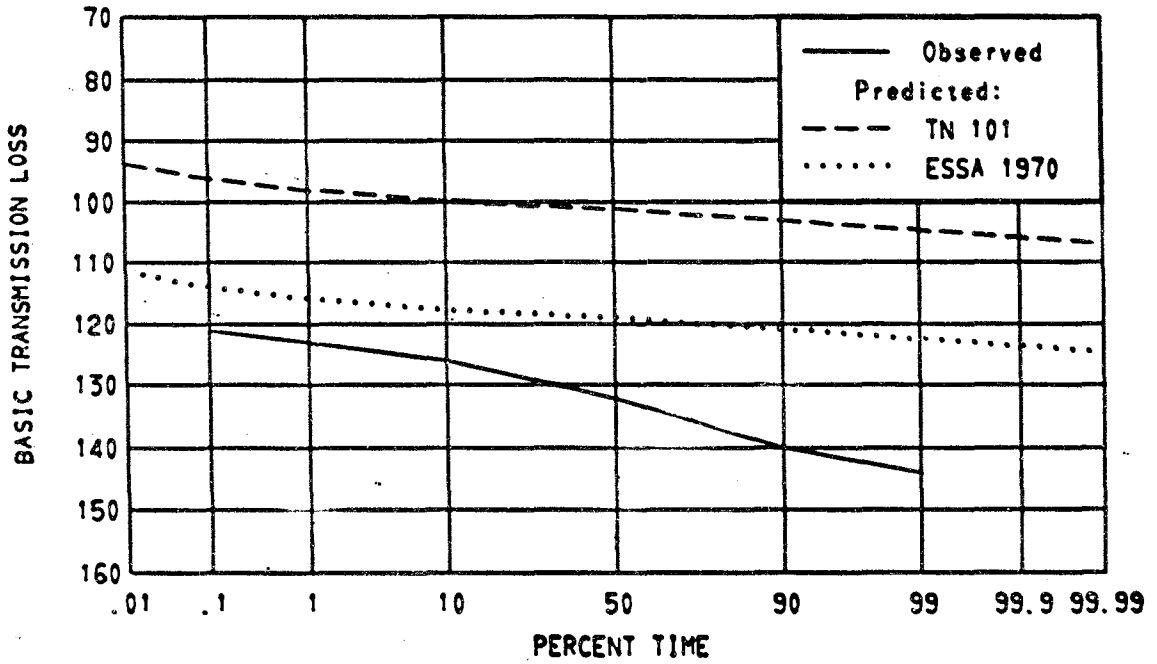
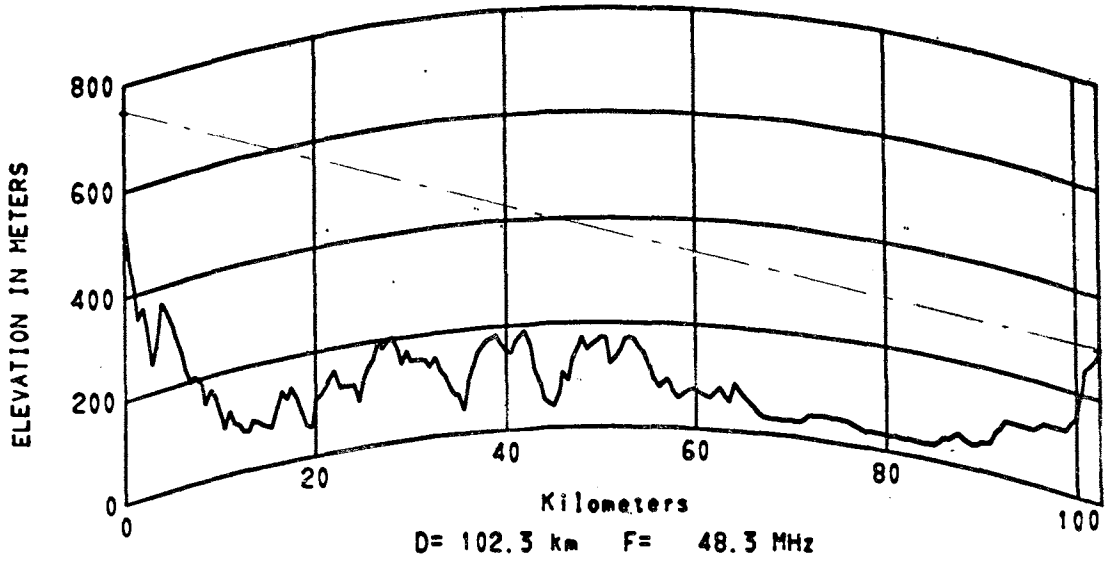


Figure 1.22 Path 2137

SANDAY ORKNEY IS - SCOUSBURGH SHETLAND IS
 PATHS 2168 2169

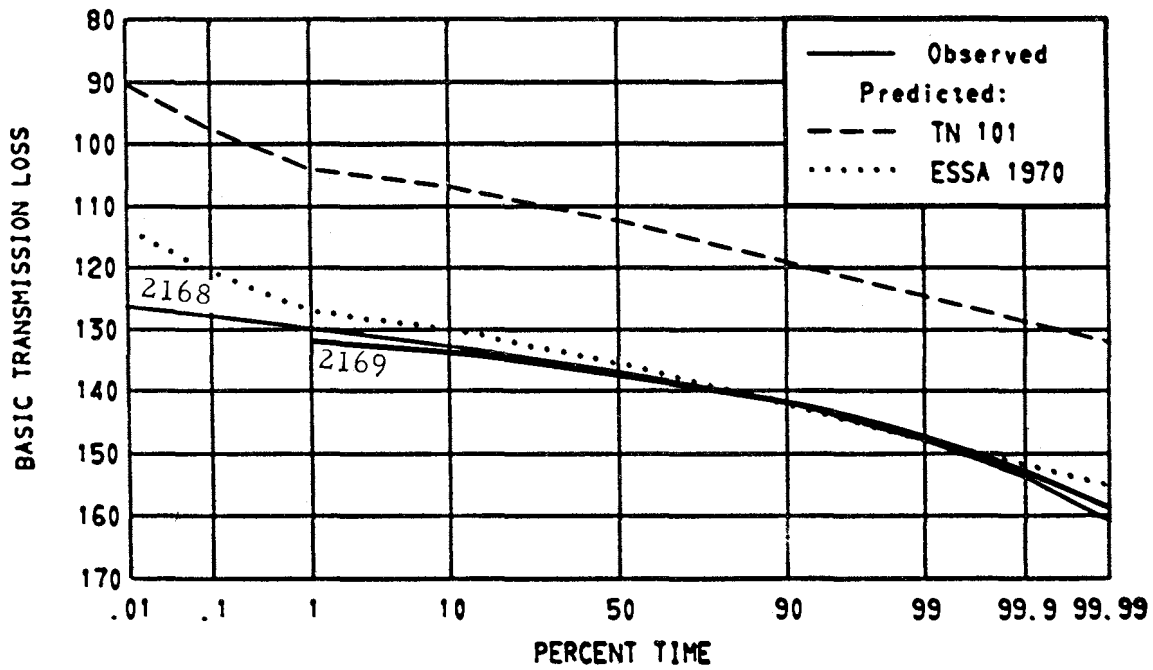
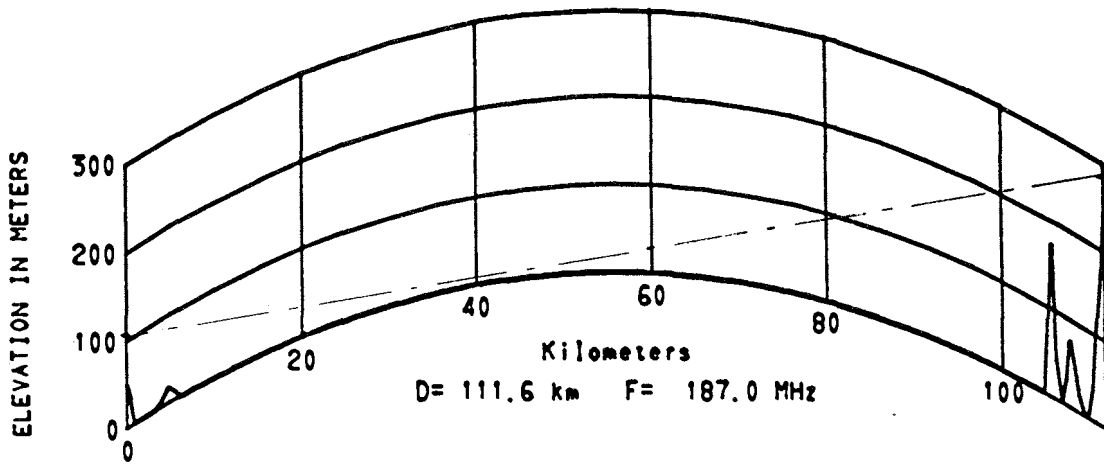


Figure 1.23 Paths 2168 2169

PATHS 2075 2151 WINTER HILL ENG - DOUGLAS ISLE OF MAN

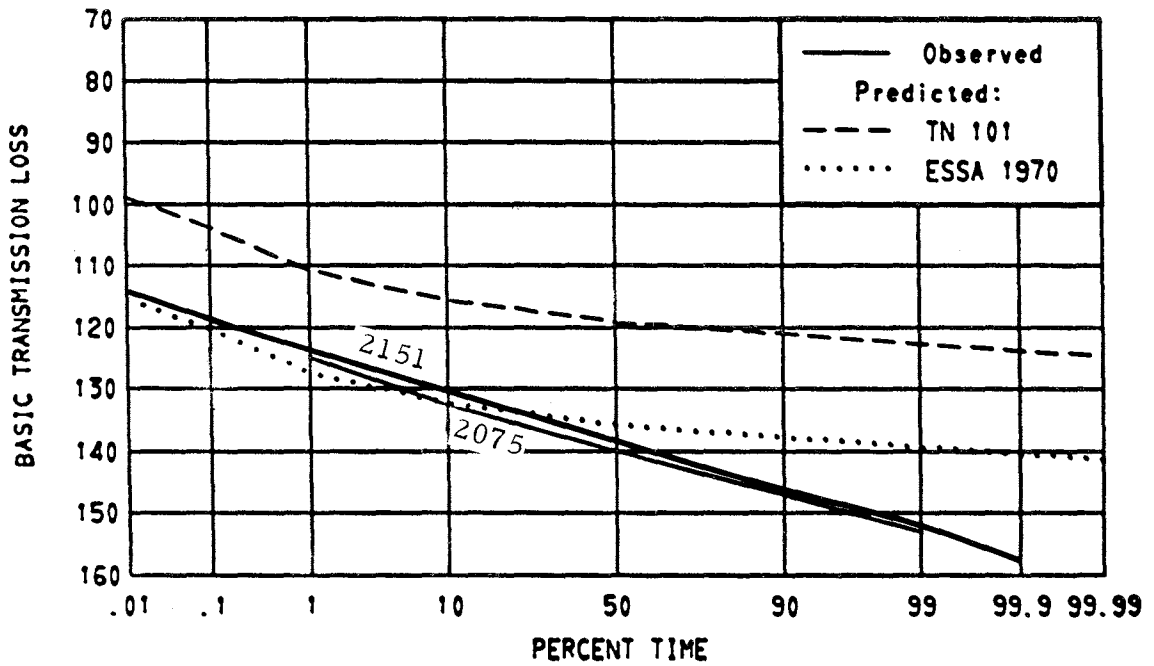
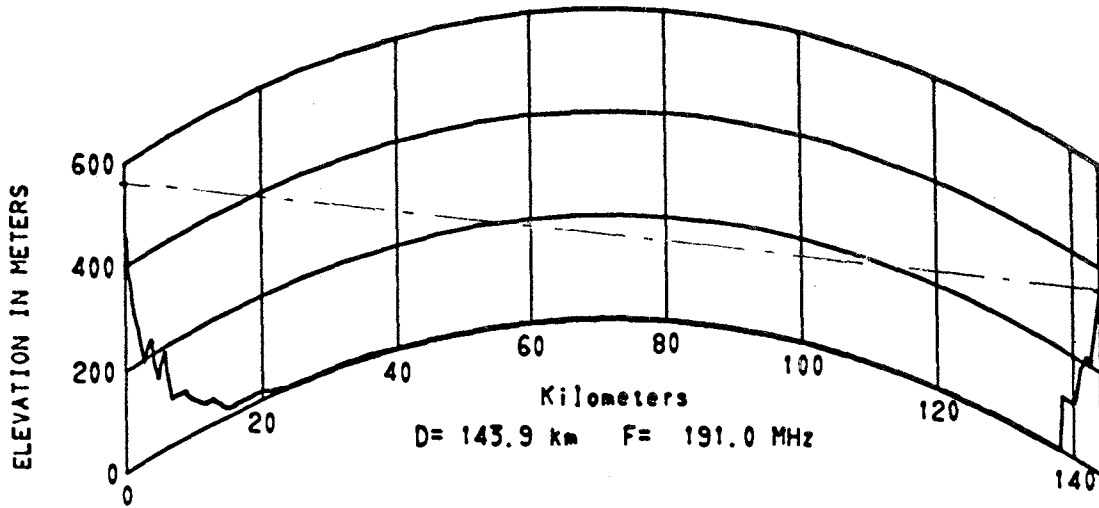
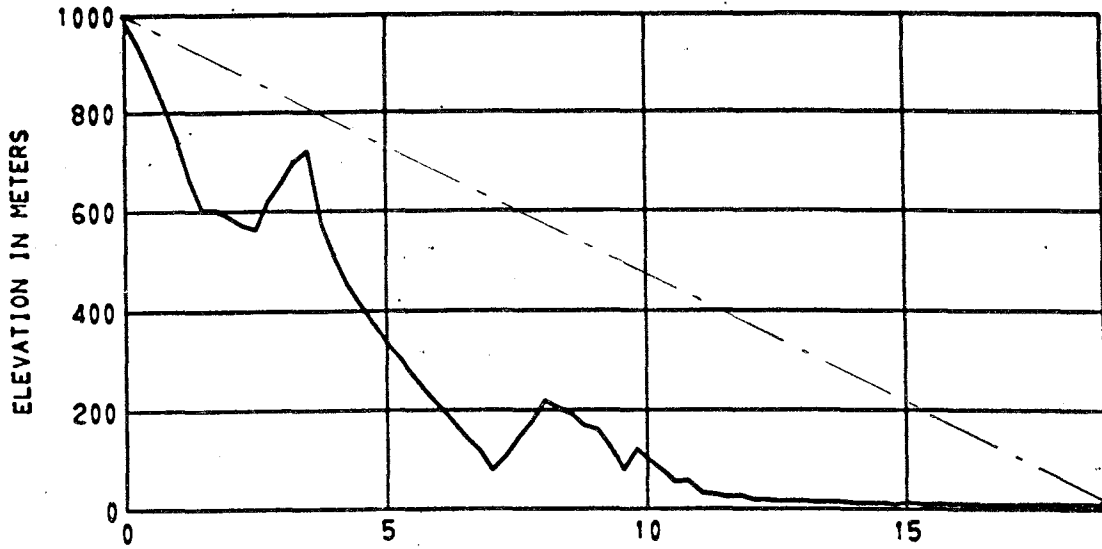


Figure 1.24 Paths 2075 2151

PATH 2244 SEBURIYAMA JAPAN - ITAZUKE JAPAN



Kilometers
 D= 18.8 km F= 7273.4 MHz

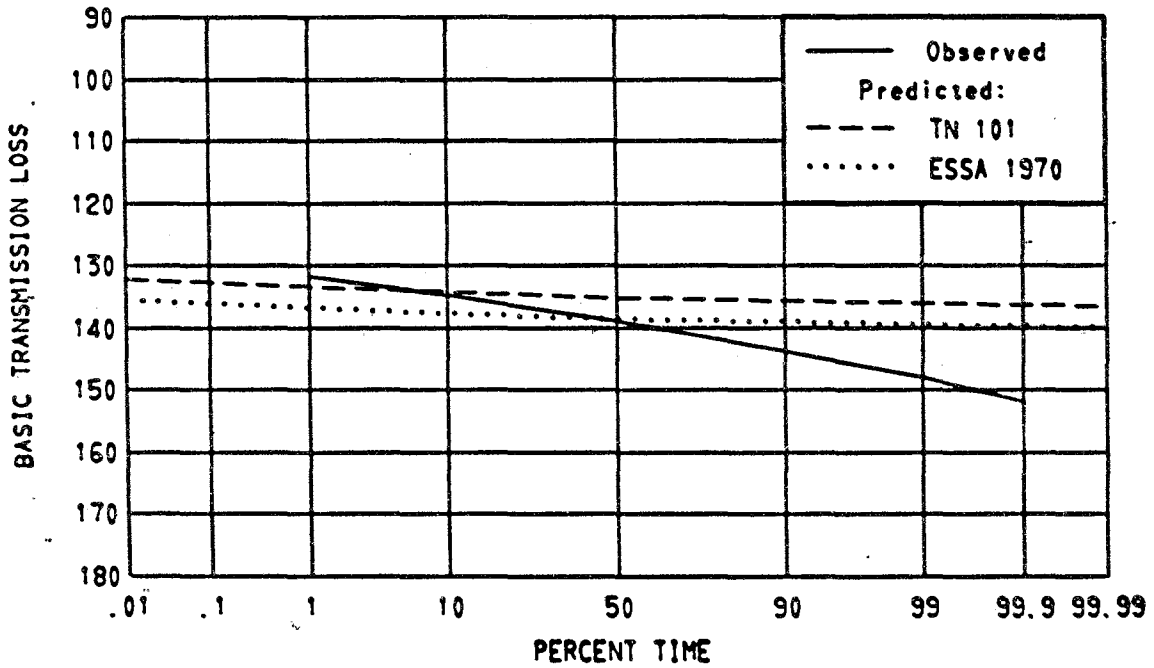
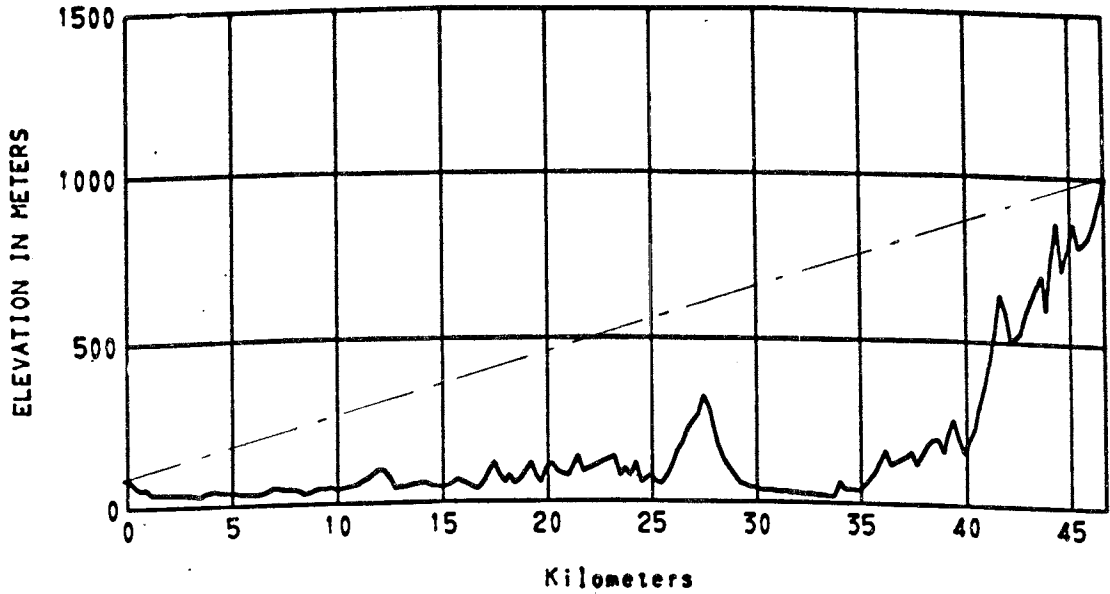


Figure 1.25 Path 2244

PATH 2239 ZAMA JAPAN - HAKONE JAPAN



D= 46.6 km F= 7273.4 MHz

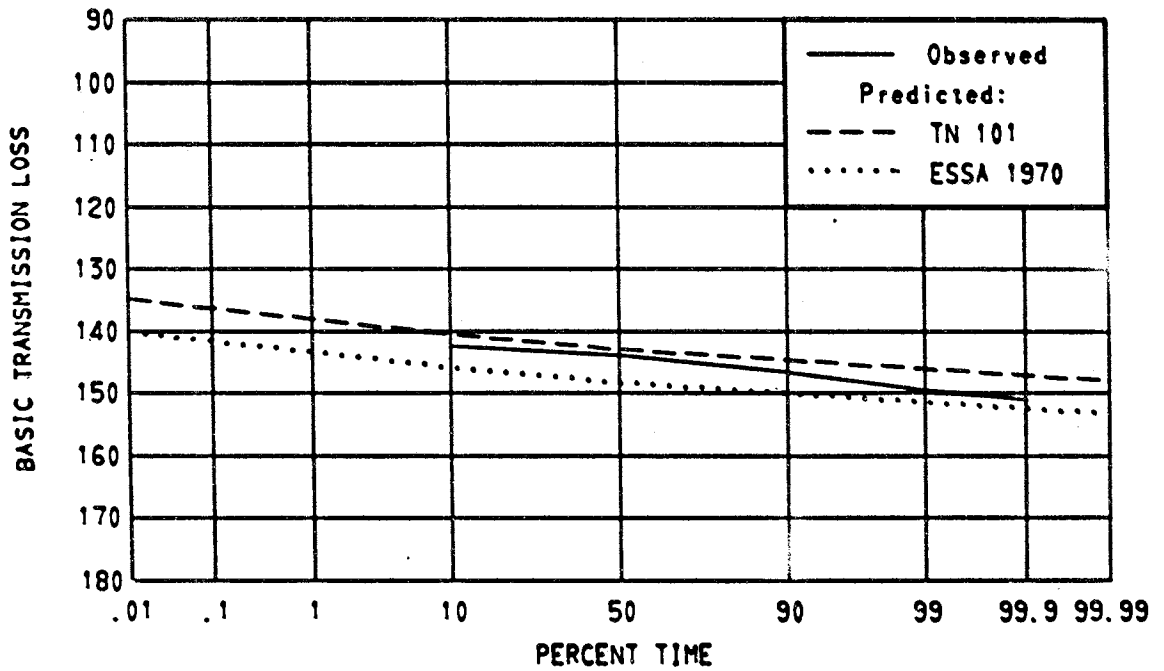


Figure 1.26 Path 2239

PATHS 2259 2260 TOKYO TOWER JAPAN - KOGA JAPAN

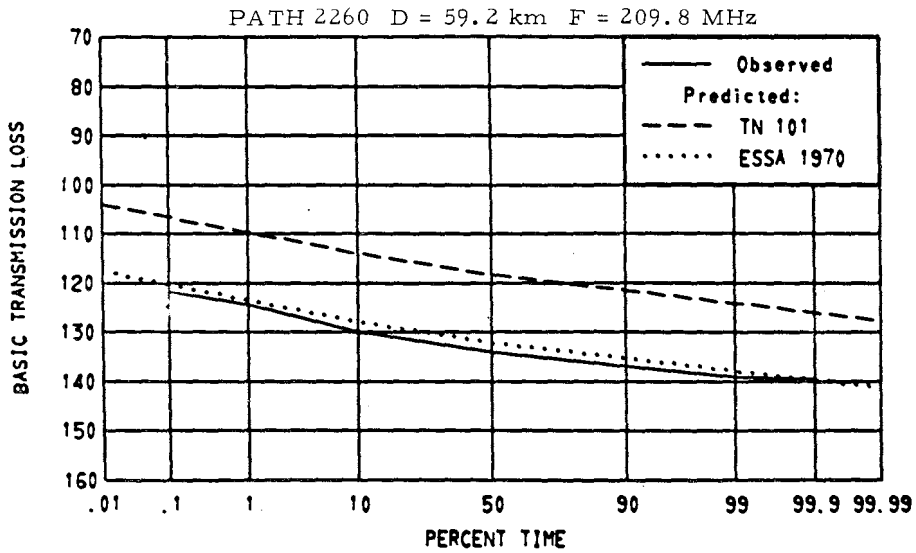
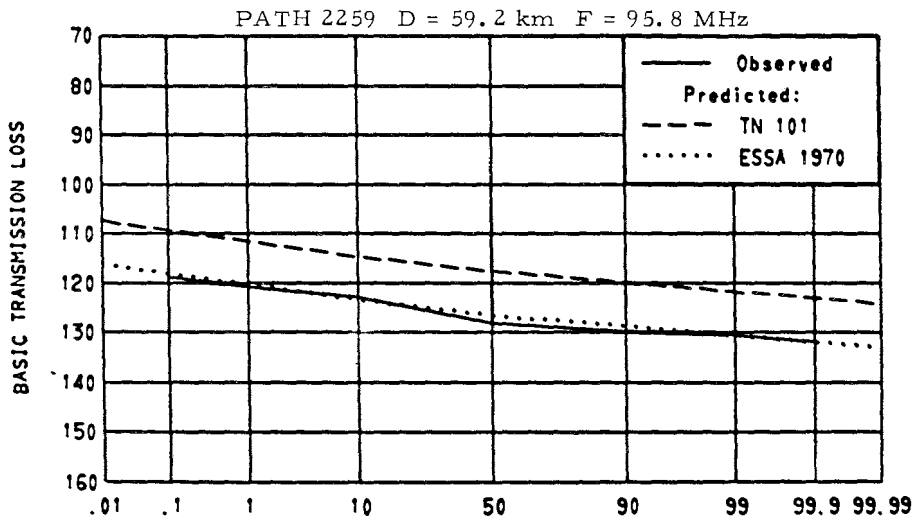
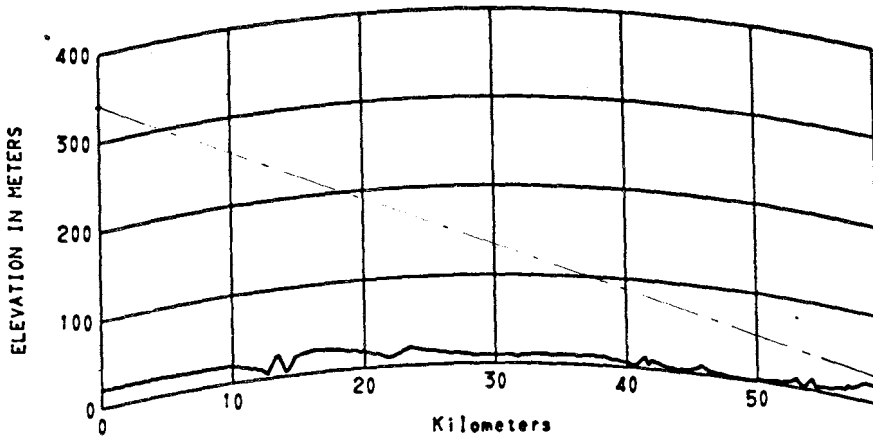
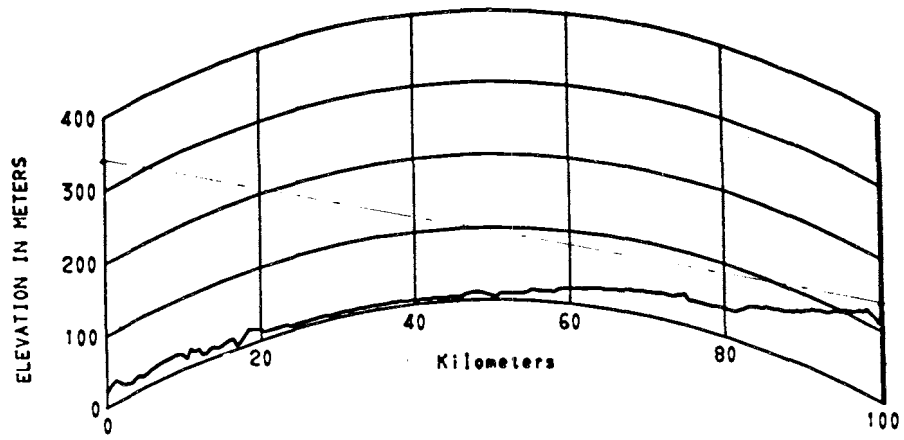
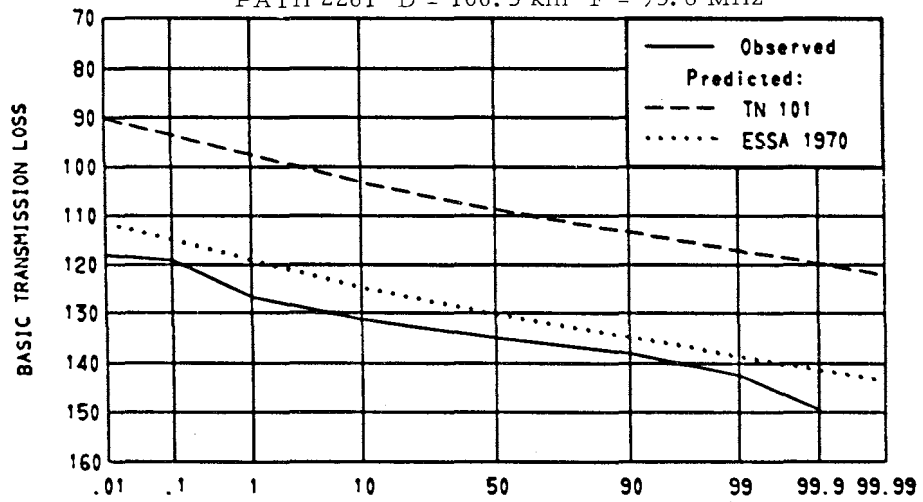


Figure 1.27 Paths 2259 2260

PATHS 2261 2262 TOKYO TOWER JAPAN - UTSUNOMIYA JAPAN



PATH 2261 D = 100.3 km F = 95.8 MHz



PATH 2262 D = 100.3 km F = 209.8 MHz

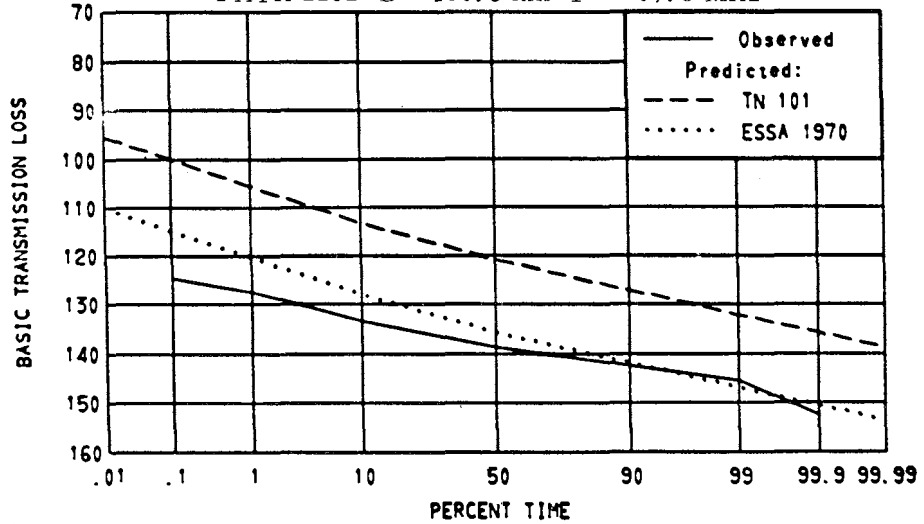


Figure 1.28 Paths 2261 2262

PATH 2243 SOFU JAPAN - SEBURIYAMA JAPAN

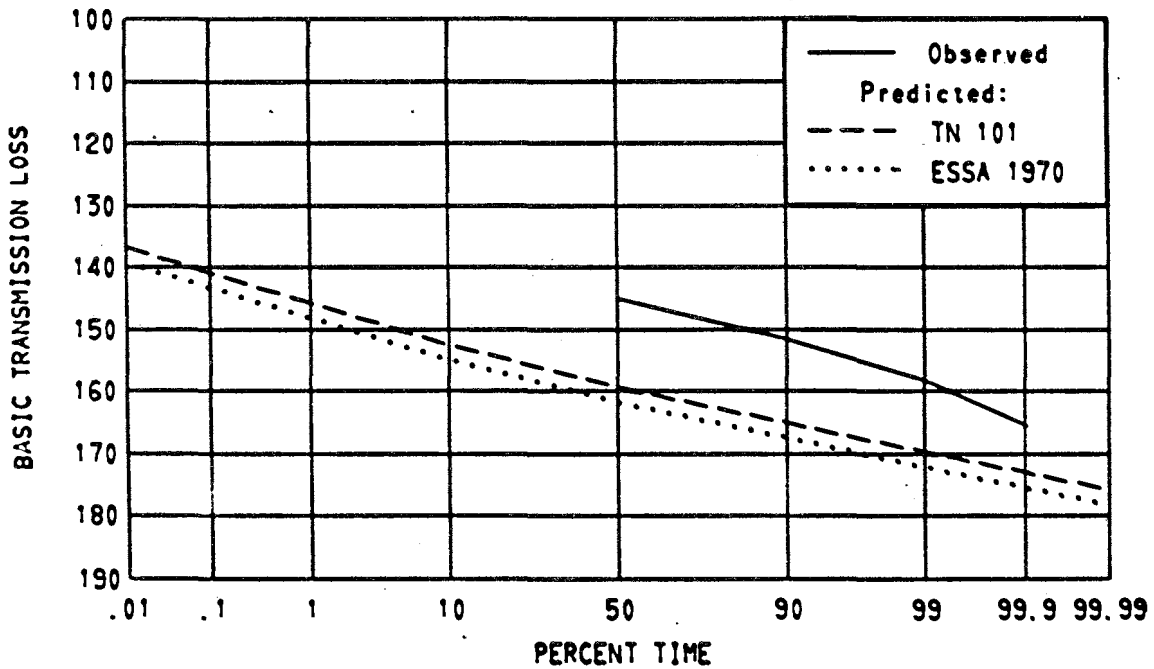
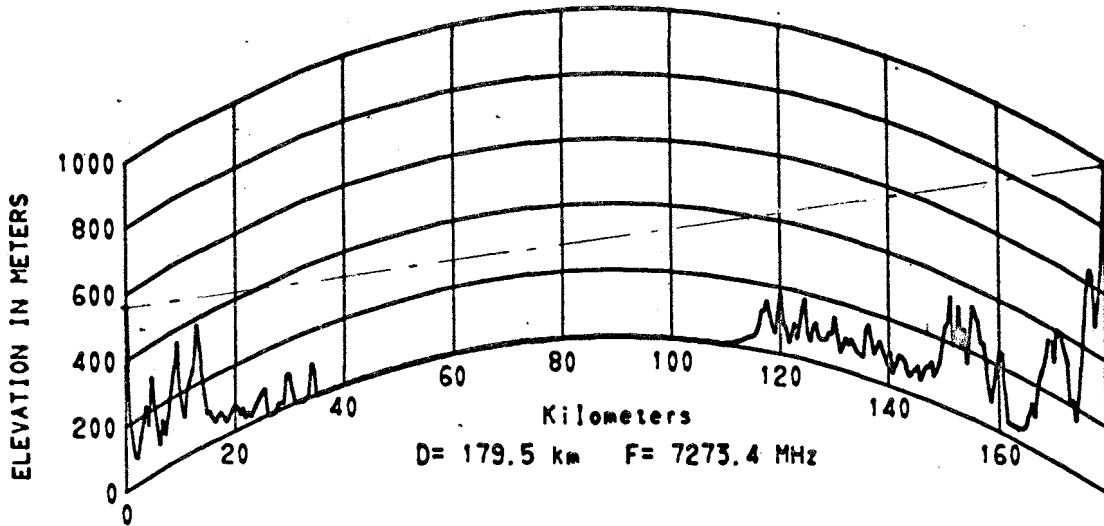


Figure 1.29 Path 2243

PATH 2370 MELLUM PLATE W GER - BREMERHAVEN W GER

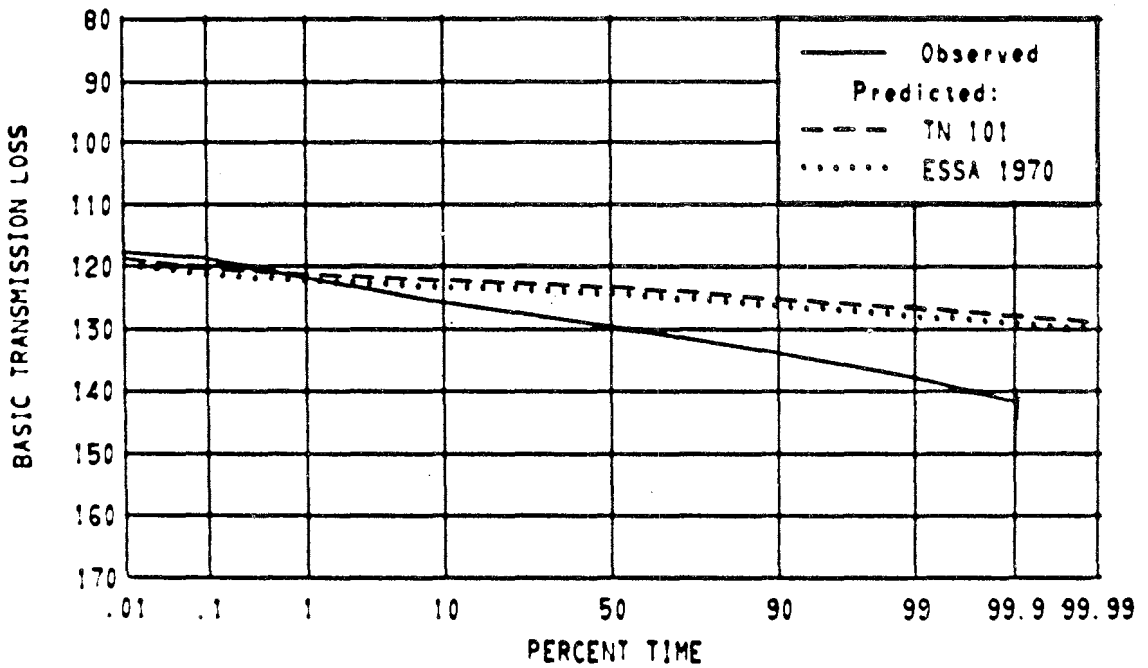
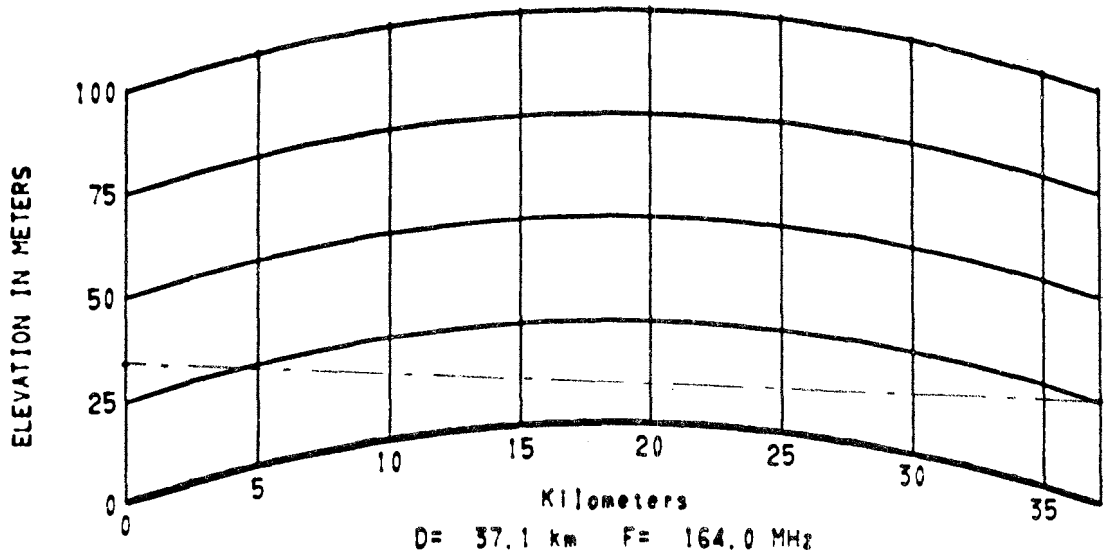


Figure 1.30 Path 2370

PATH 2358 FELDBERG W GER - DARMSTADT W GER

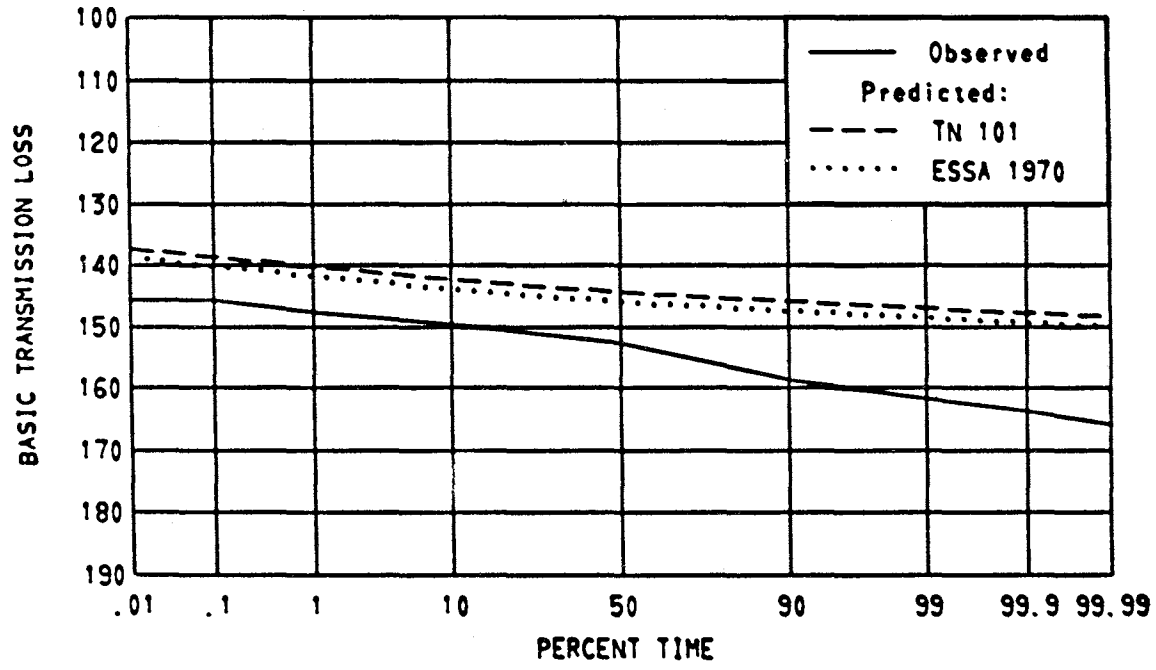
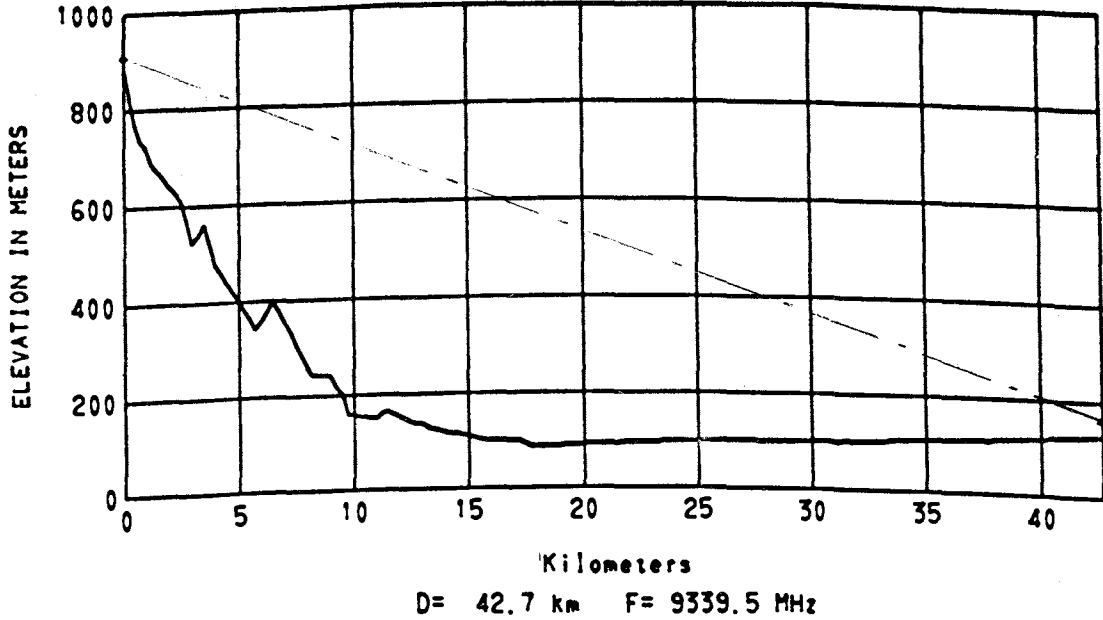


Figure 1.31 Path 2358

PATHS 2444 TO 2446 HAMBACH W GER - DARMSTADT W GER

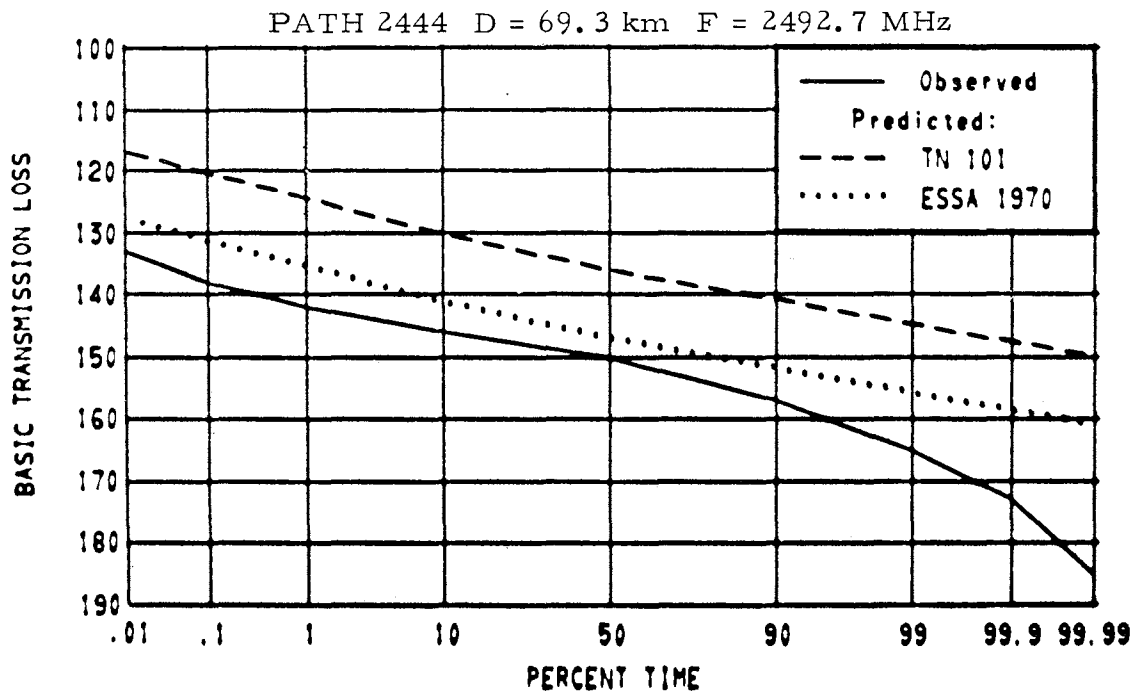
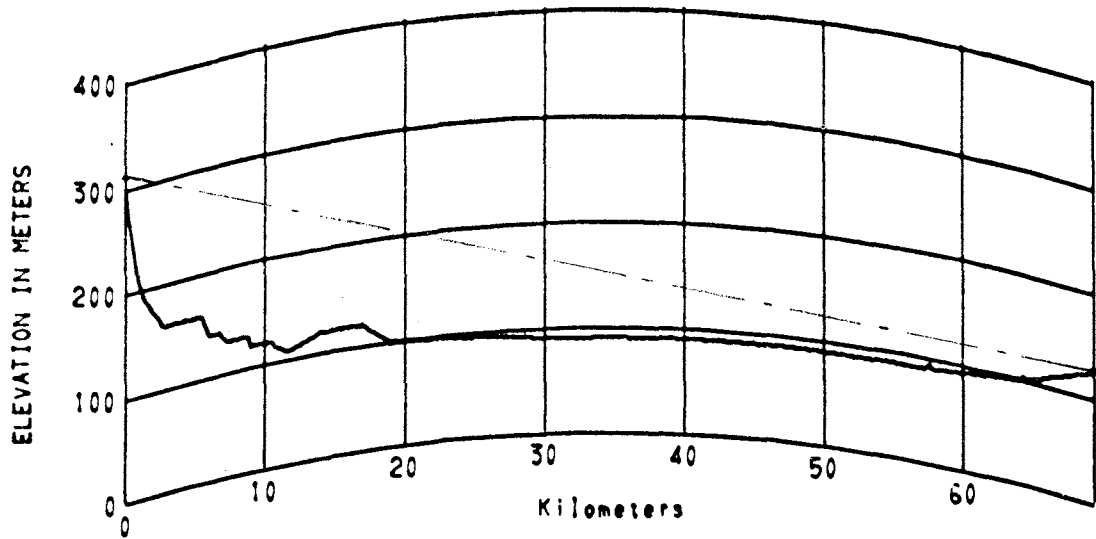
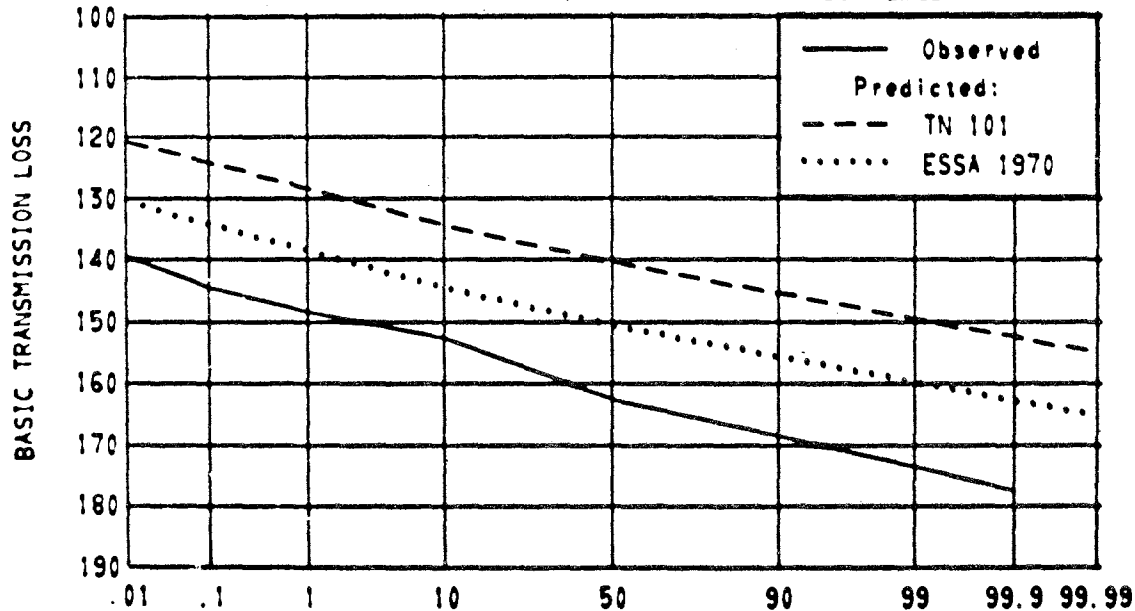


Figure 1.32 Path 2444

HAMBACH W GER - DARMSTADT W GER

PATH 2445 D = 69.3 km F = 4165.0 MHz



PATH 2446 D = 69.3 km F = 6679.0 MHz

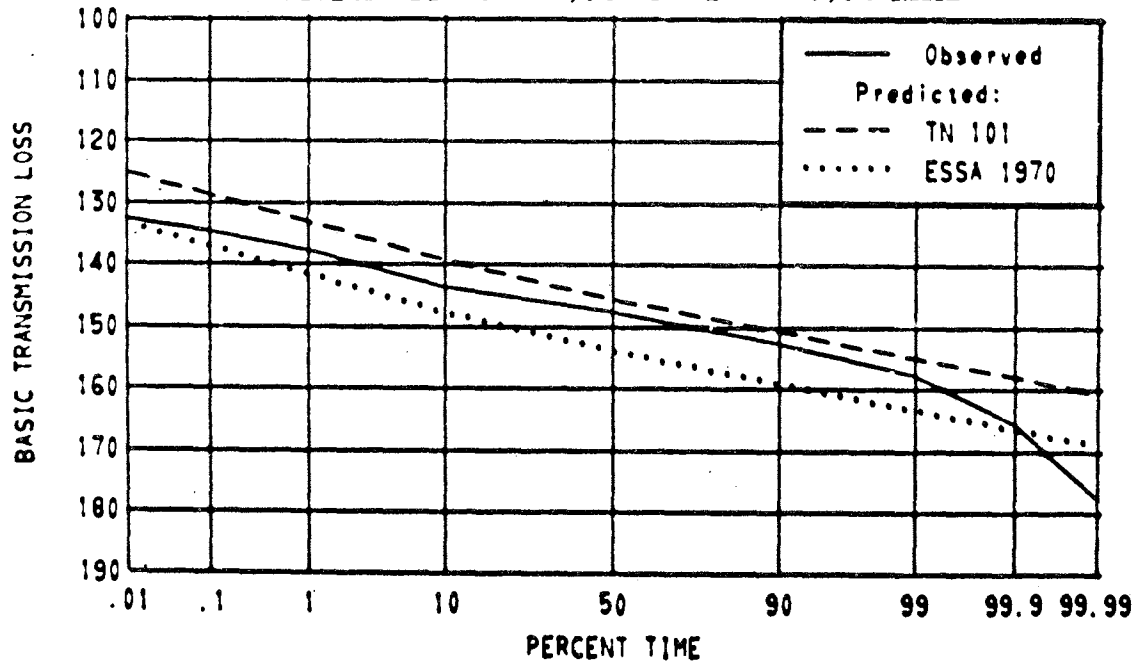


Figure 1.33 Paths 2445 2446

PATH 2389 FELDBERG/TAUNUS W GER - DONNERSBERG W GER

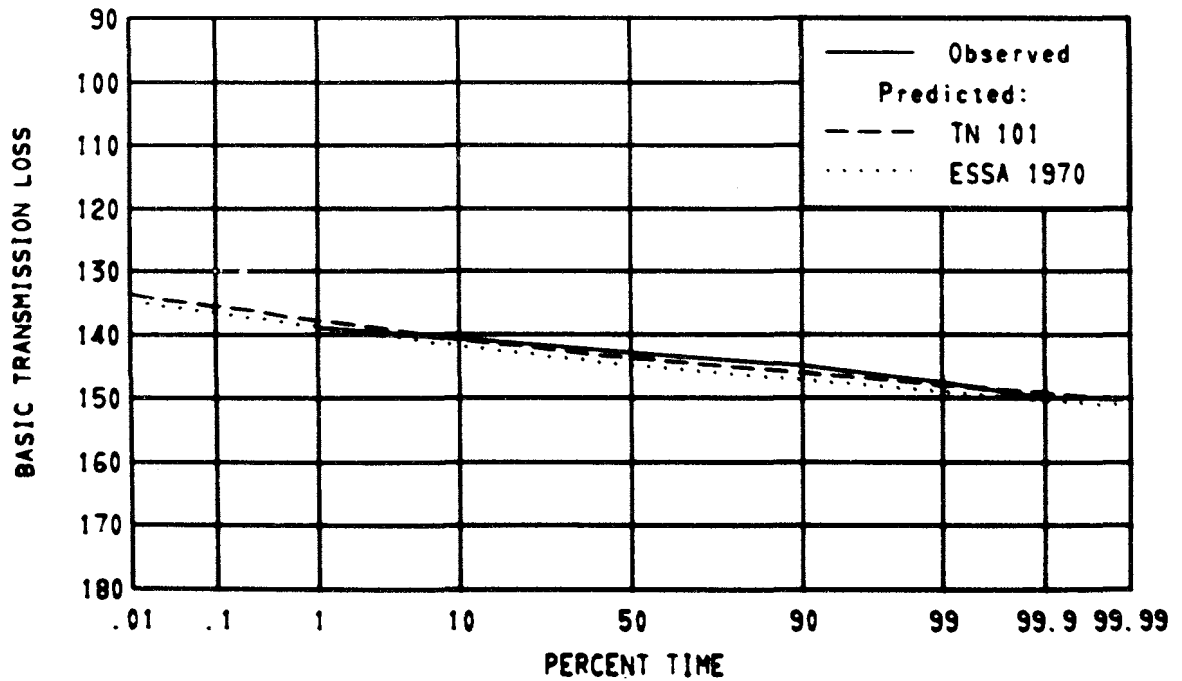
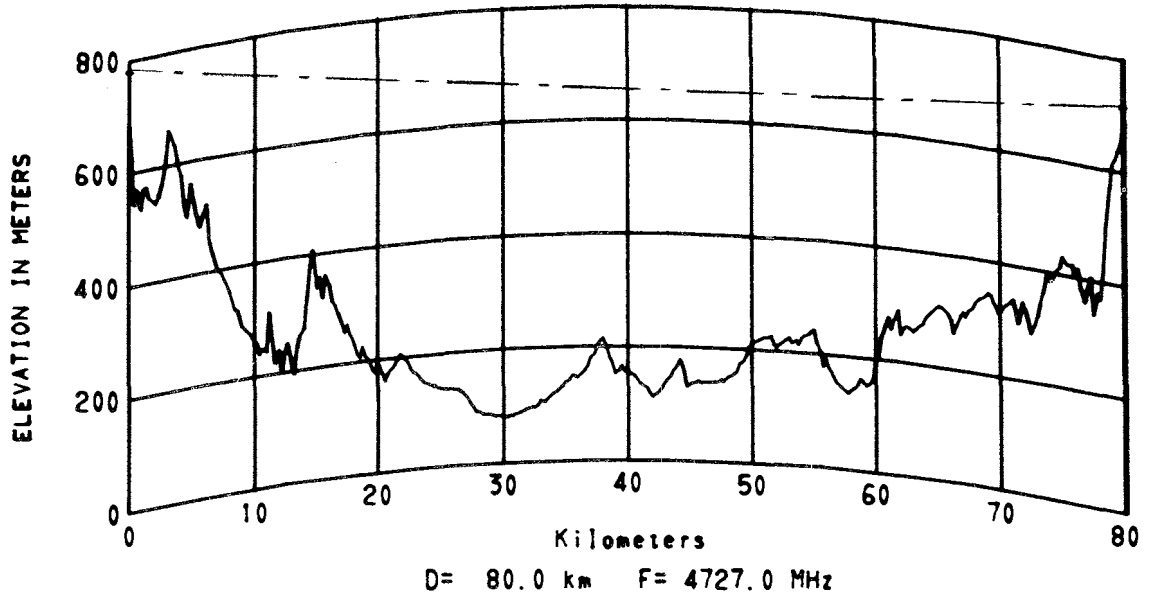


Figure 1.34 Path 2389

BADEN-BADEN W GER - DARMSTADT W GER
 PATHS 2350 TO 2355,2378

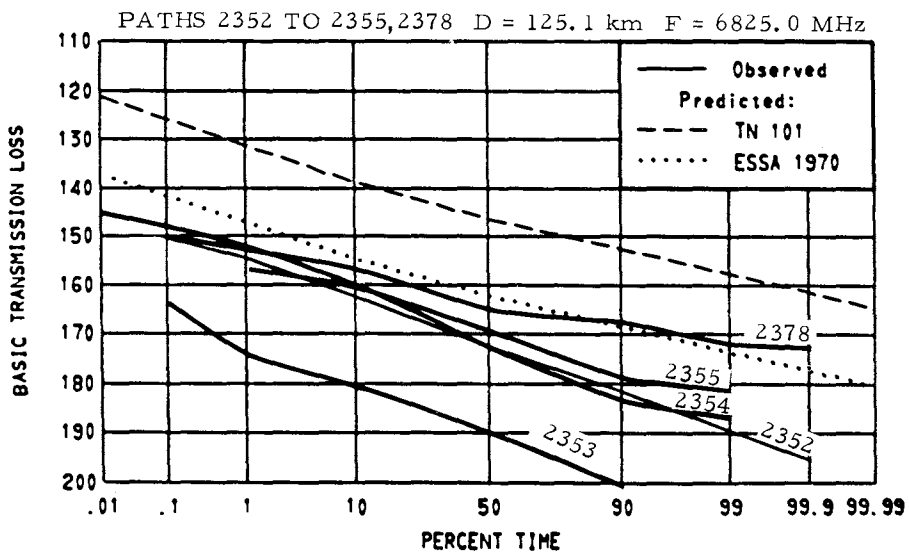
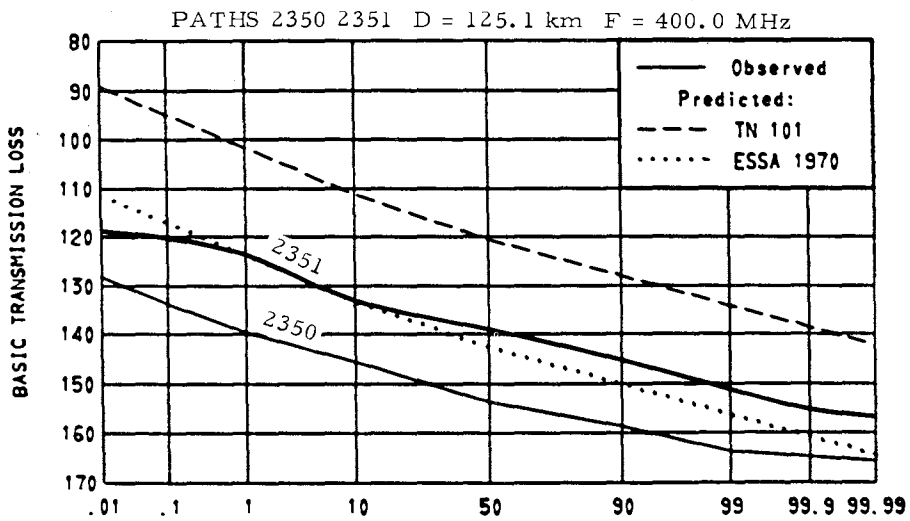
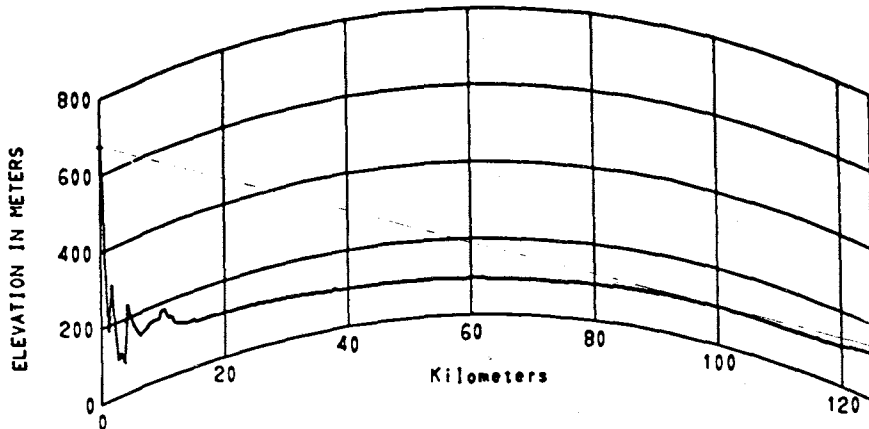


Figure 1.35 Paths 2350 to 2355,2378

HORNISGRINDE W GER - DARMSTADT W GER
 PATHS 2363 TO 2366, 2440 TO 2443

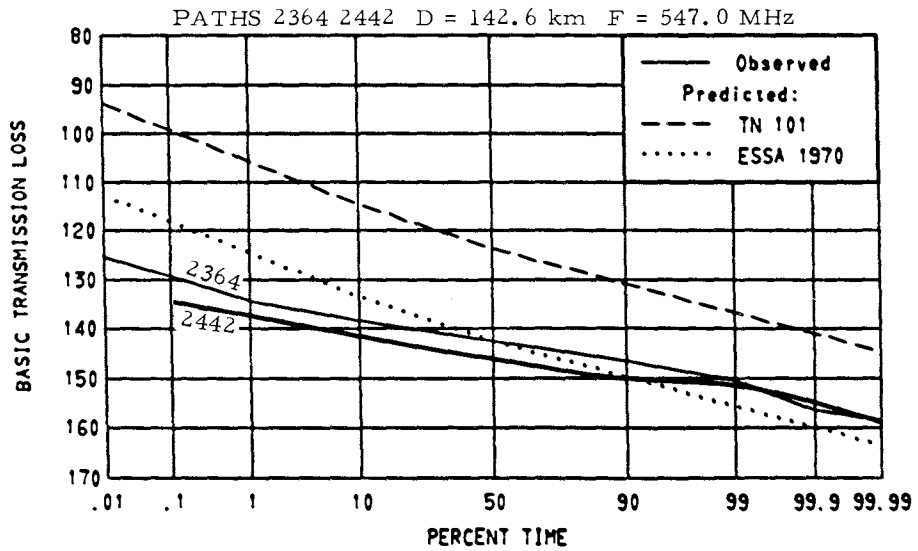
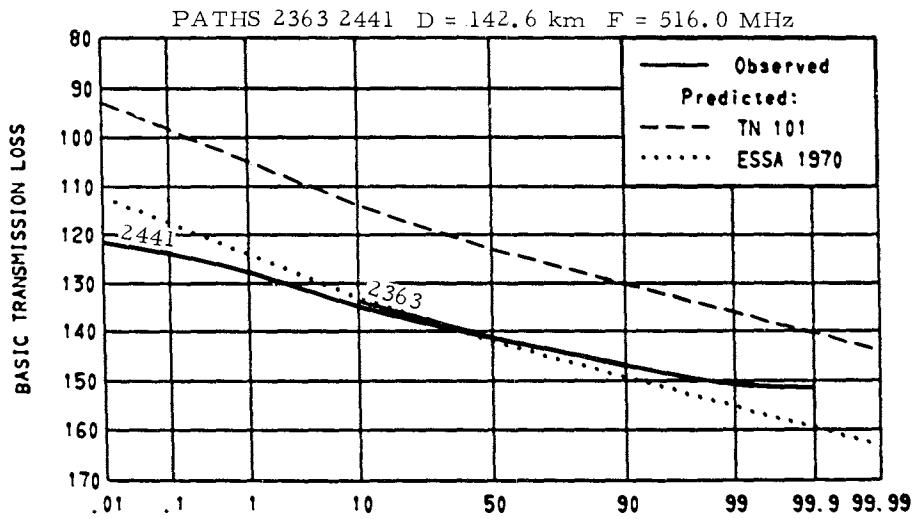
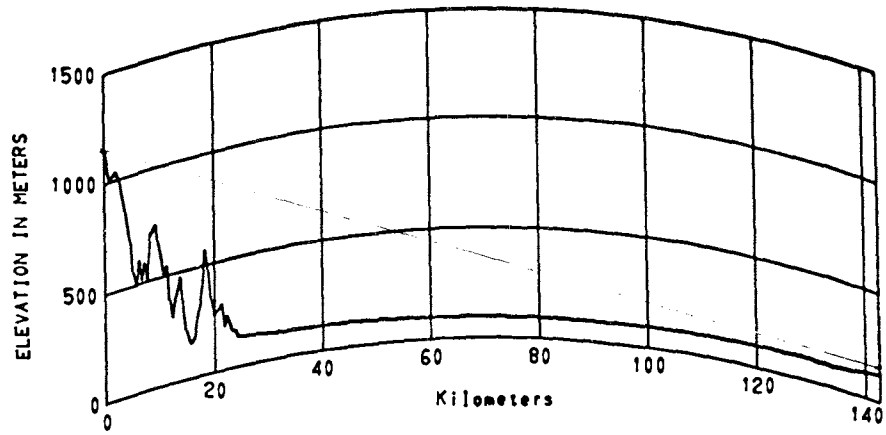


Figure 1.36 Paths 2363 2364 2441 2442

HORNISGRINDE W GER - DARMSTADT W GER

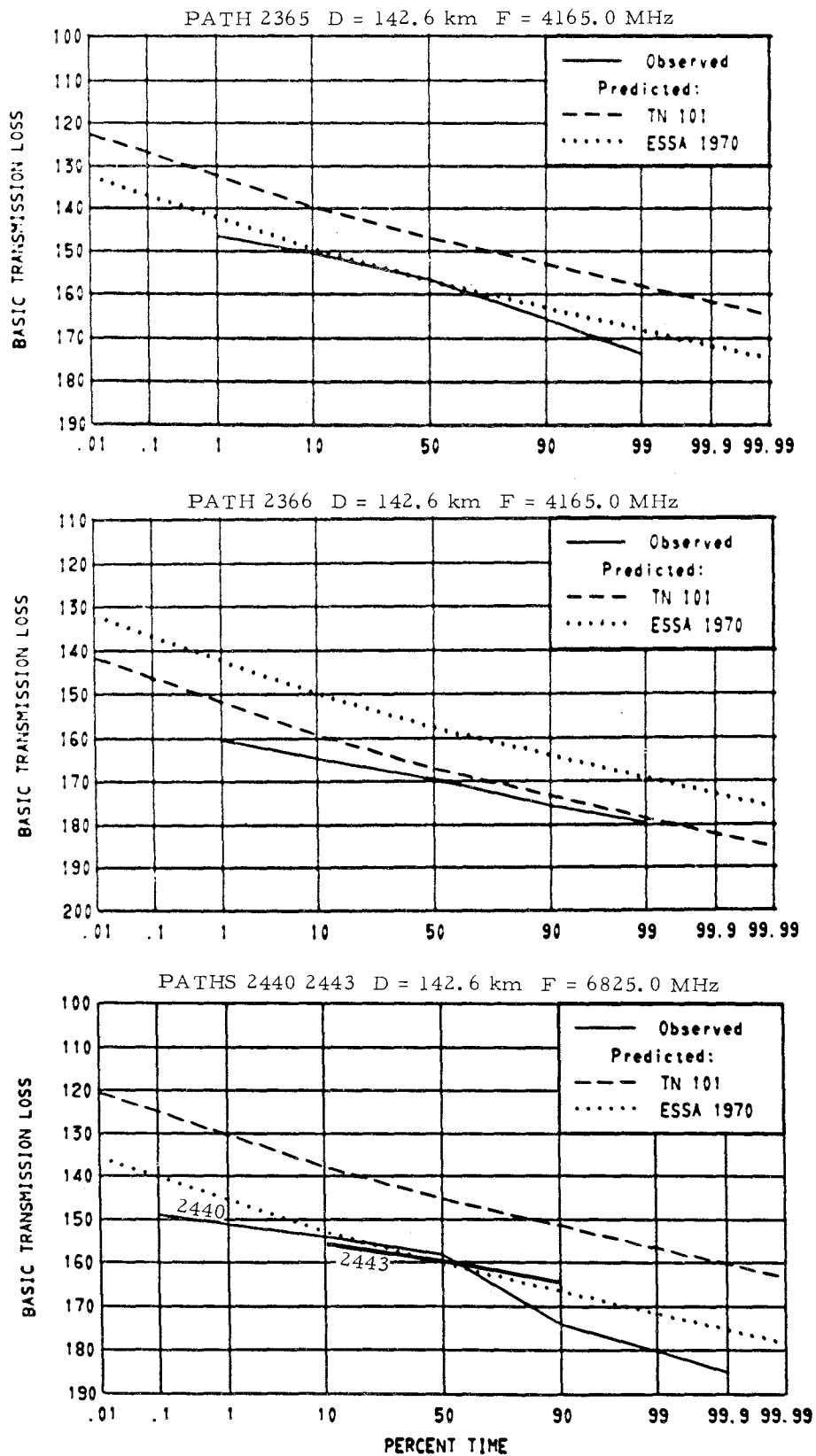


Figure 1.37 Paths 2365 2366 2440 2443

PATH 1594 PARNIS GREECE - CHIOS ISLAND GREECE

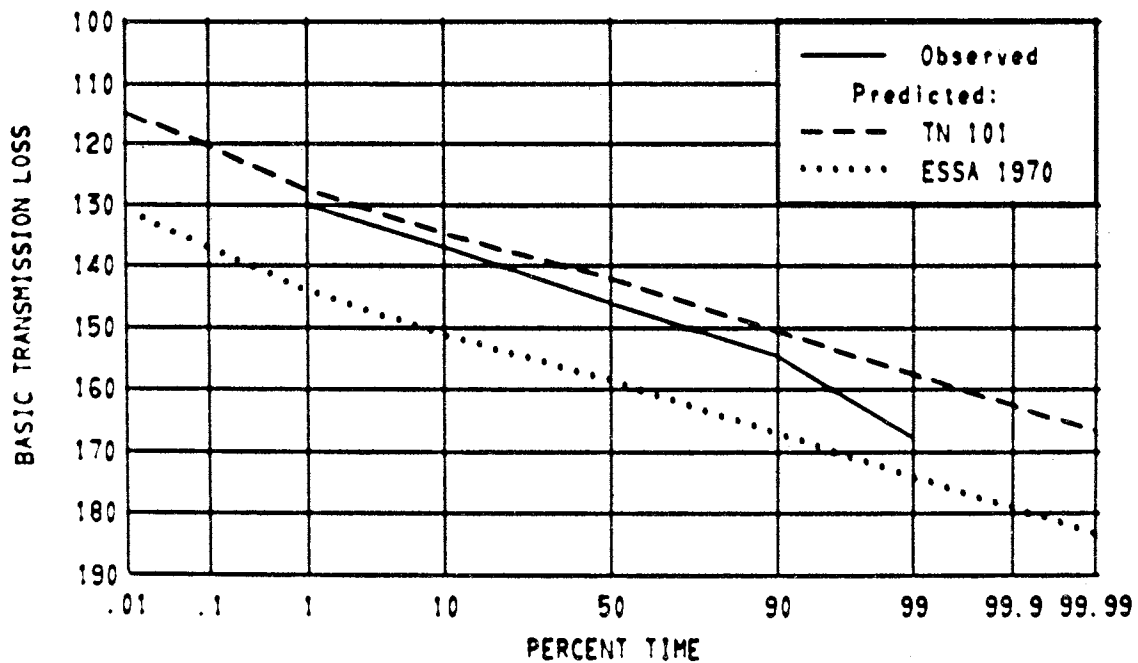
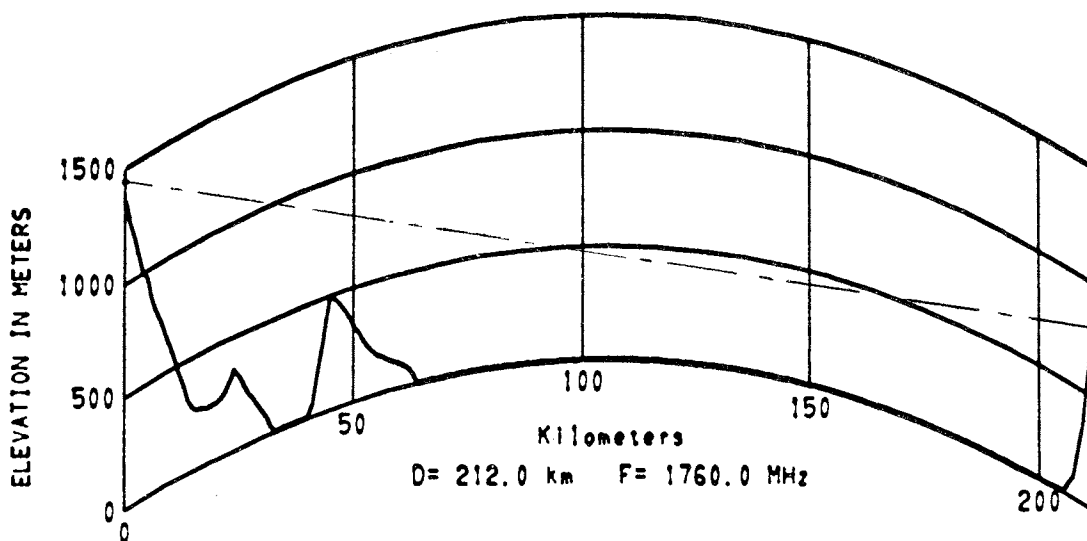
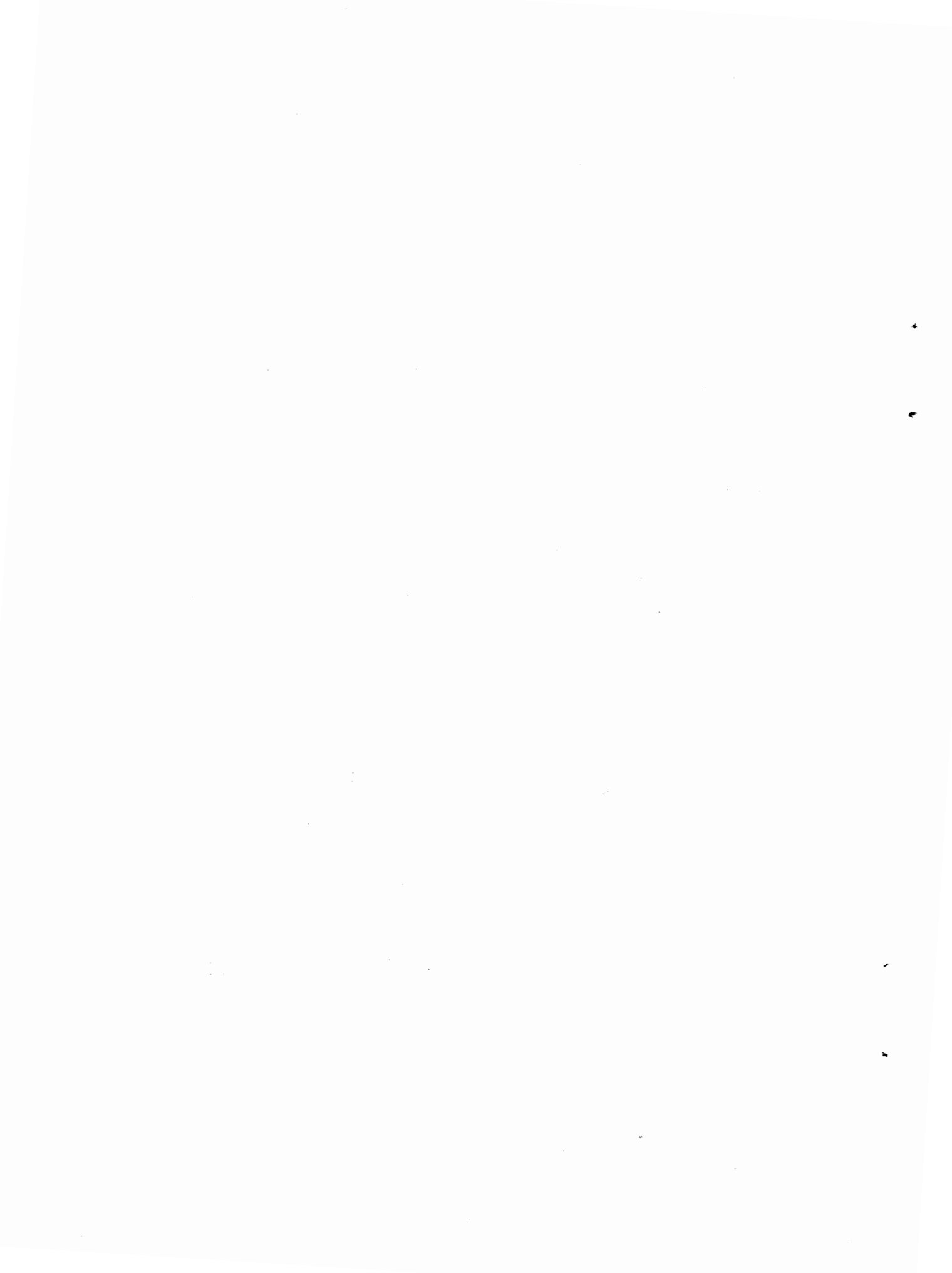


Figure 1.38 Path 1594



PART 2
Diffraction Paths

| | <u>Figure Nos.</u> |
|----------------------------------|--------------------|
| 2.1 Single Isolated Obstacle | |
| A. United States | 2.1 to 2.3 |
| B. United Kingdom | 2.4 to 2.12 |
| C. Other | 2.13 to 2.14 |
| 2.2 Double Isolated Obstacle | |
| A. United States | 2.15 to 2.22 |
| B. United Kingdom | 2.23 to 2.27 |
| C. Japan | 2.28 to 2.30 |
| 2.3 Common Horizon, not isolated | |
| A. United States | 2.31 to 2.34 |
| B. Other | 2.35 to 2.36 |
| 2.4 Transhorizon | |
| A. United States | 2.37 to 2.53 |
| B. United Kingdom | 2.54 to 2.73 |
| C. West Germany | 2.74 to 2.76 |
| D. Japan | 2.77 to 2.80 |

PATH 2 SACRAMENTO CALIF - LIVERMORE CALIF

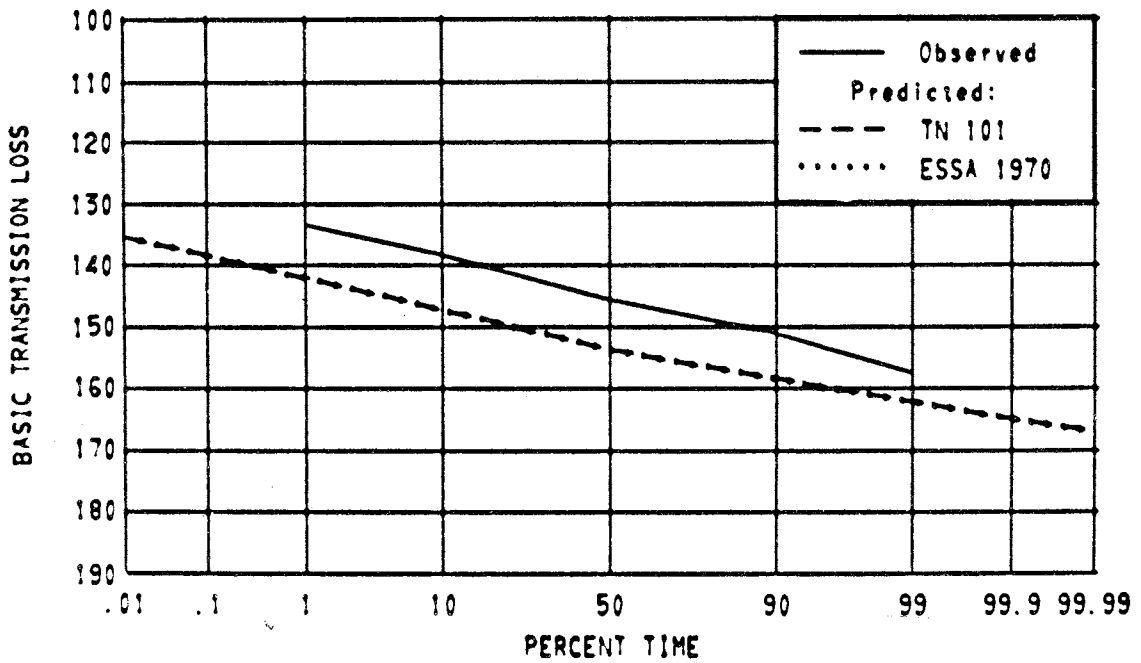
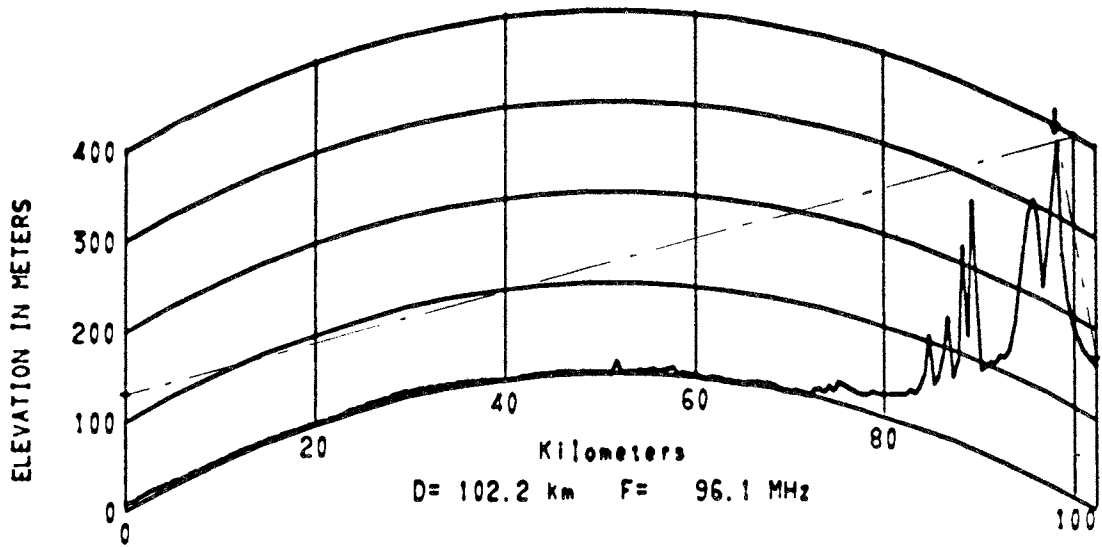


Figure 2.1 Path 2

PATH 200 SAN DIEGO CALIF - SANTA ANA CALIF

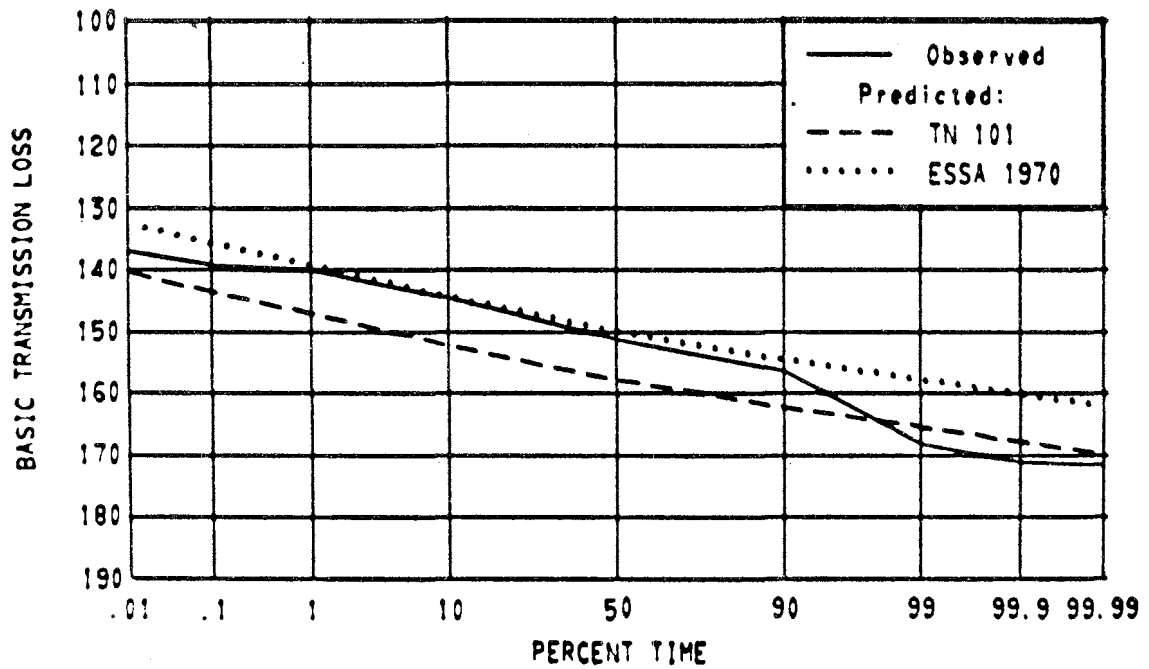
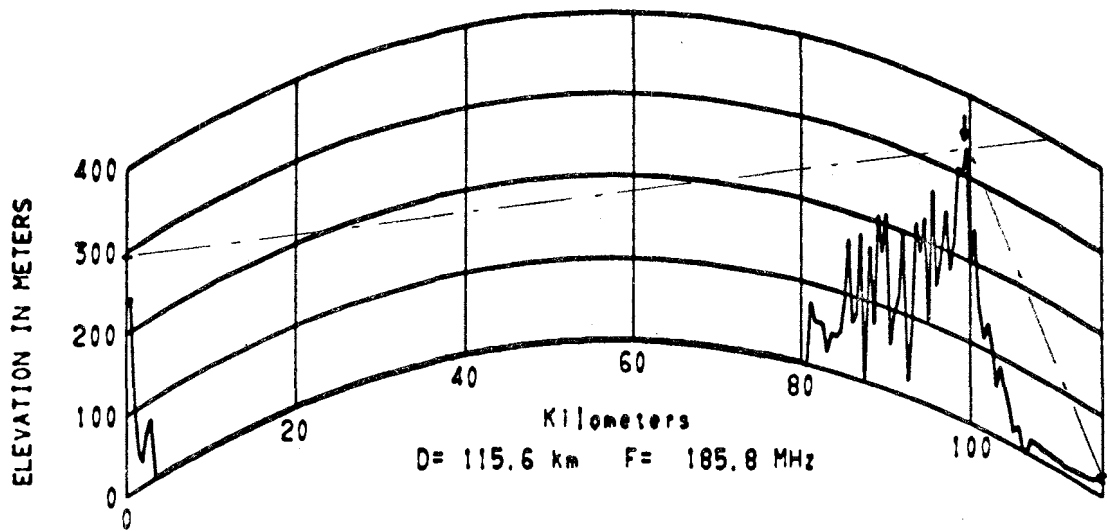


Figure 2.2 Path 200

PATHS 319 TO 321 BEULAH COLO - TABLE MESA COLO

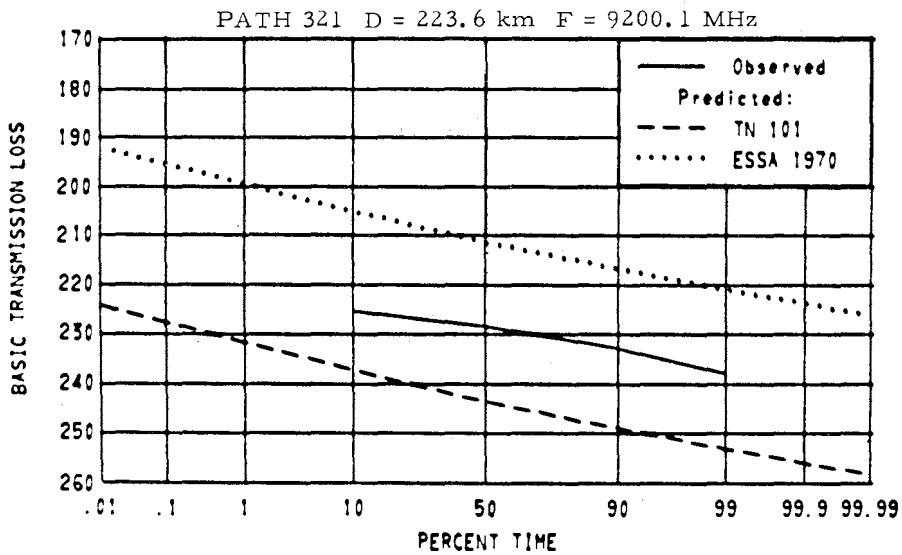
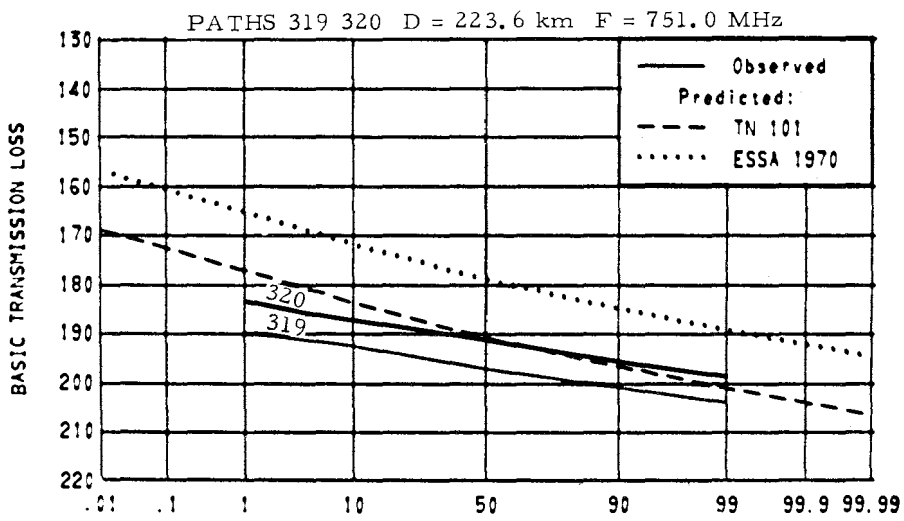
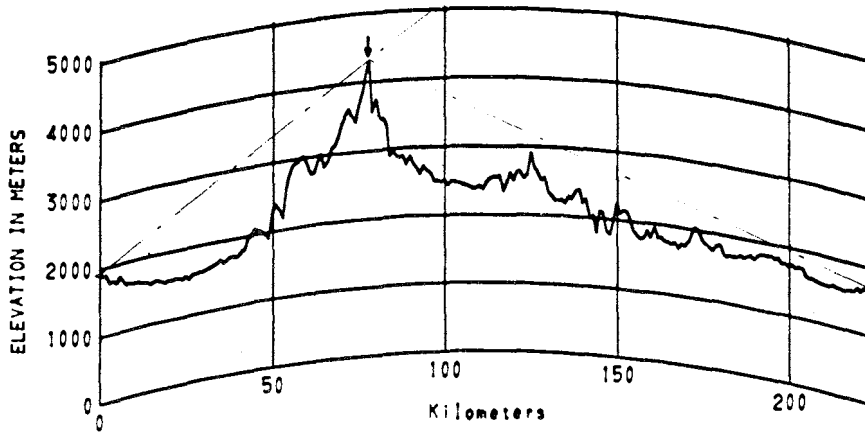


Figure 2.3 Paths 319 to 321

PATH 2091 WROTHAM ENG - CAVERSHAM ENG

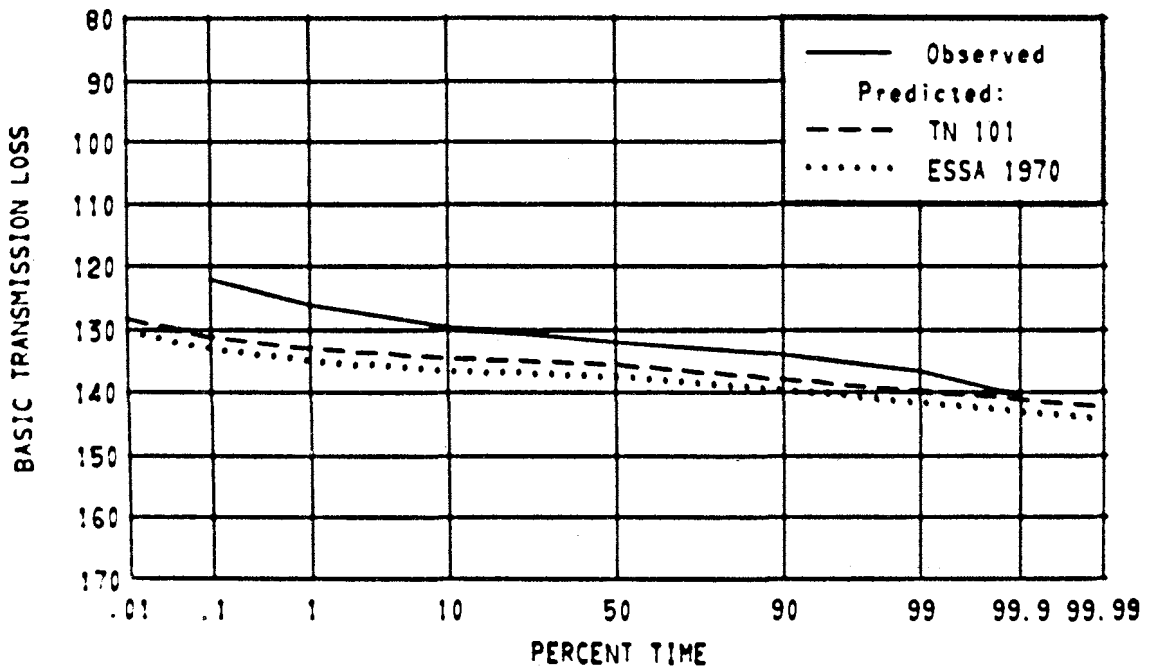
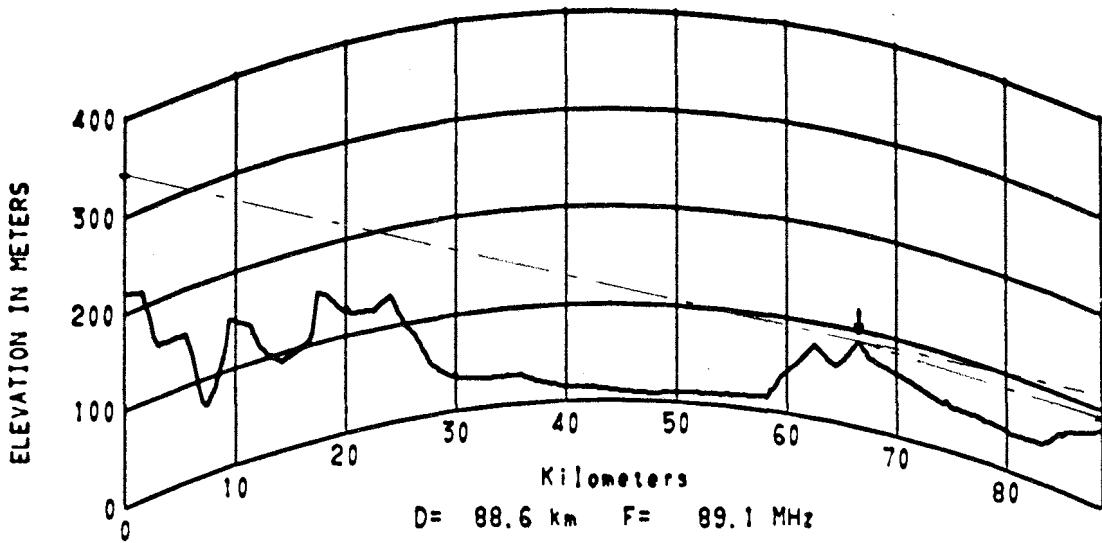


Figure 2.4 Path 2091

SUTTON COLDFIELD ENG - MURSLEY ENG
 PATHS 1984 2025 2028 2201 2202

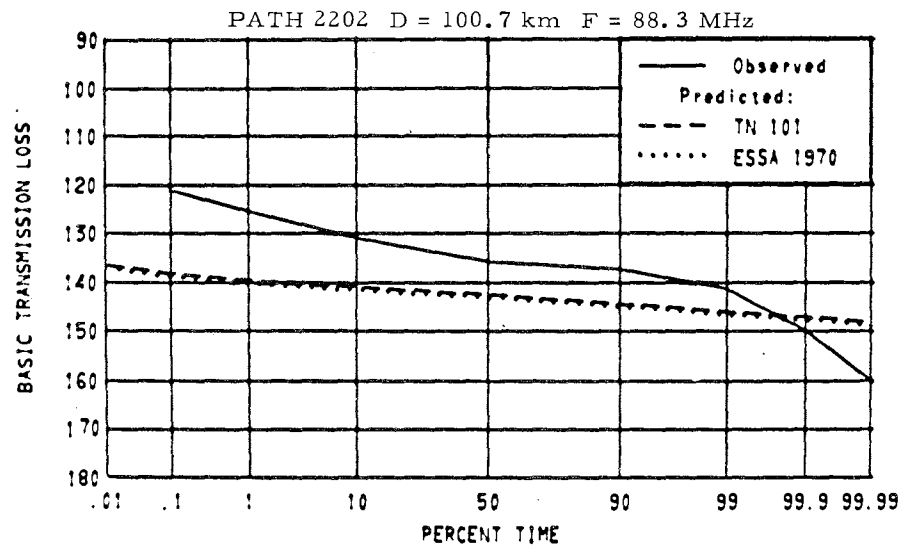
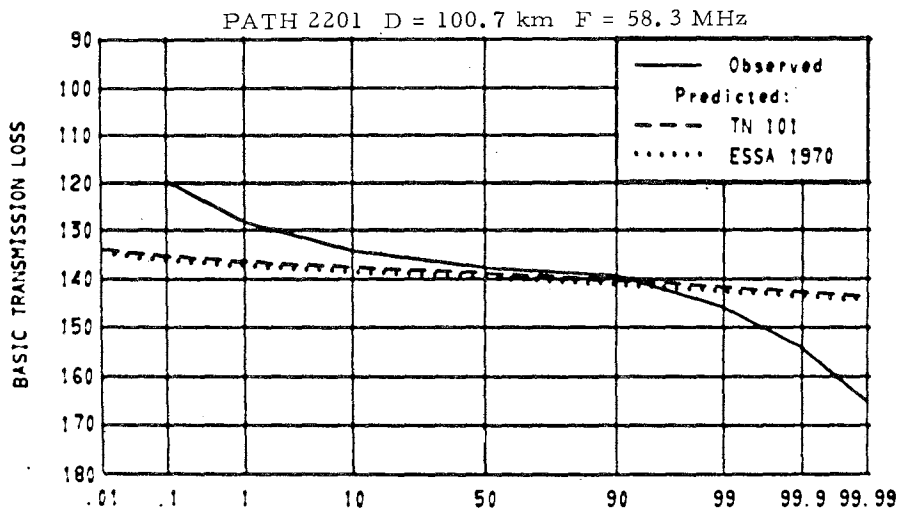
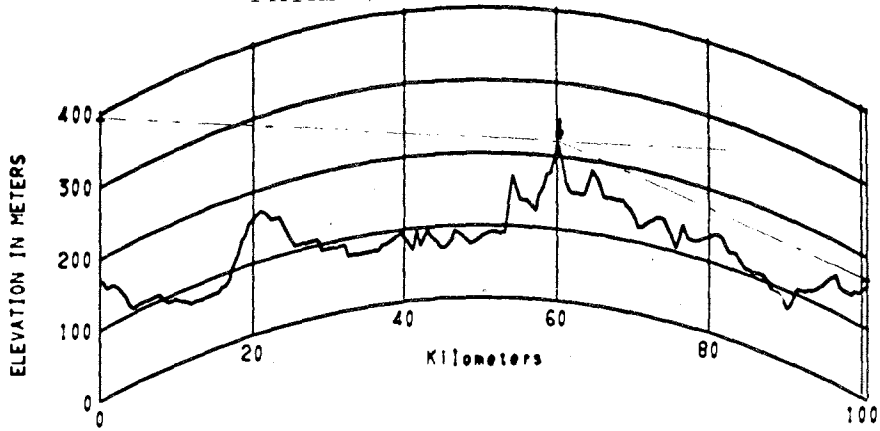


Figure 2.5 Paths 2201 2202

SUTTON COLDFIELD ENG - MURSLEY ENG

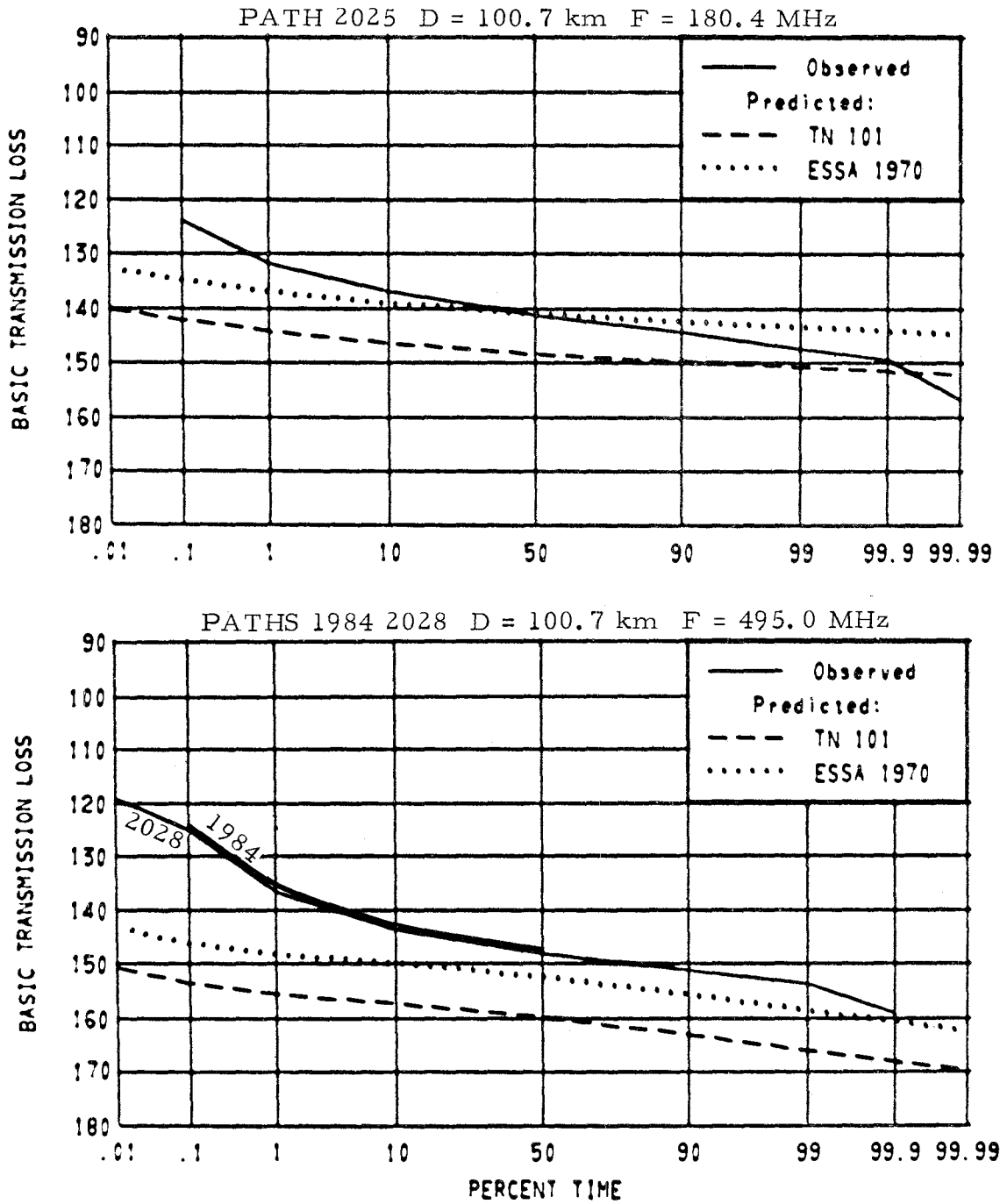


Figure 2.6 Paths 1984 2025 2028

PATH 2057 DAVENTRY ENG - TEDDINGTON ENG

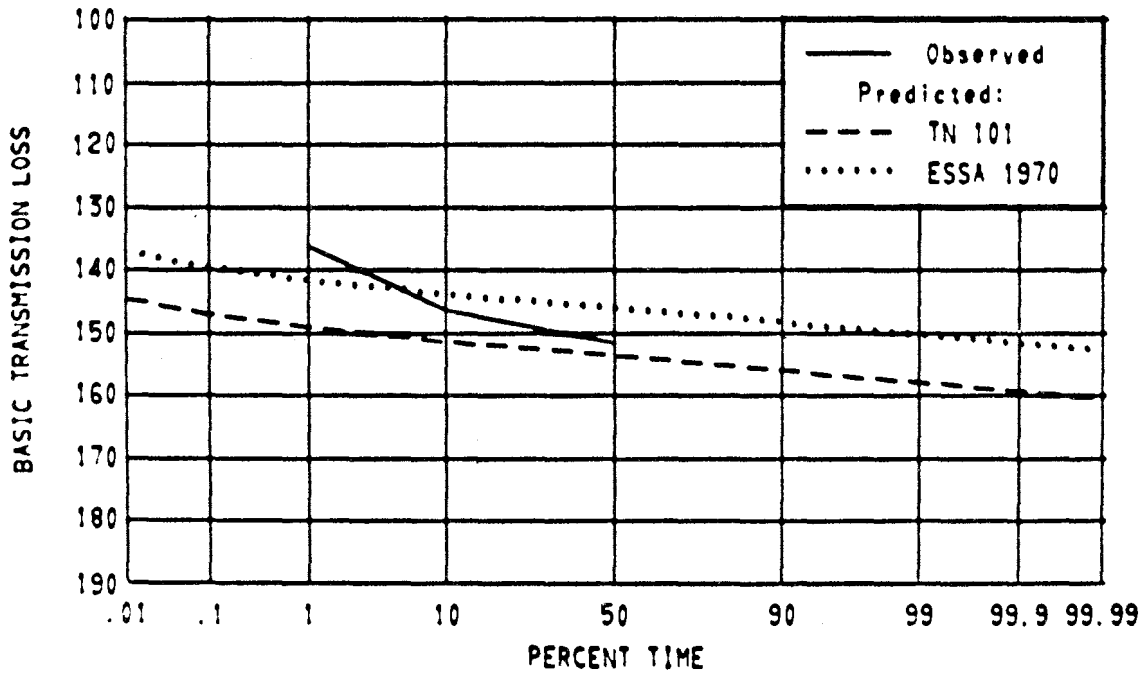
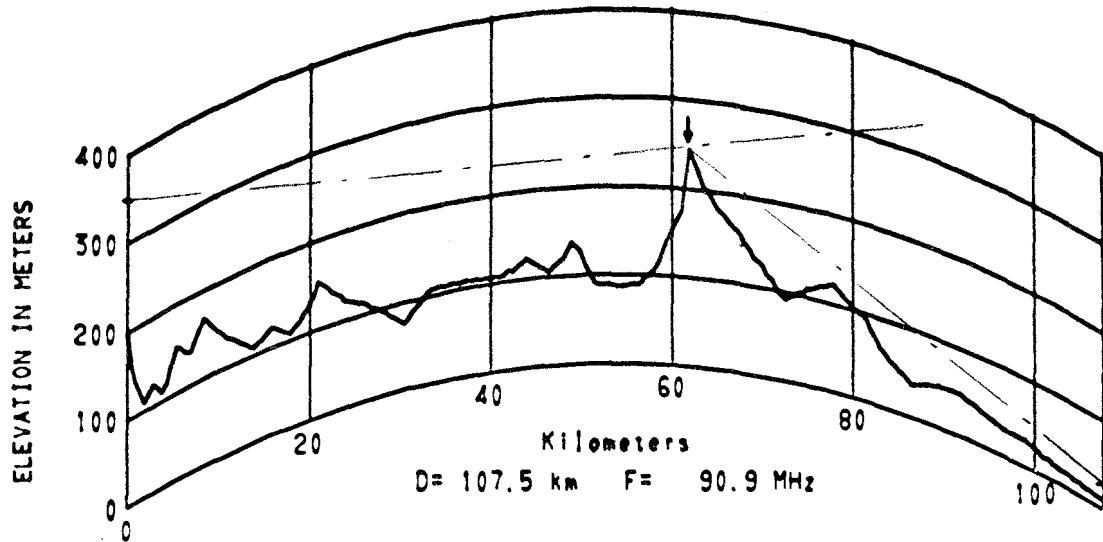


Figure 2.7 Path 2057

PATH 2140 BLAEN PLWYF WALES • HOLYHEAD WALES

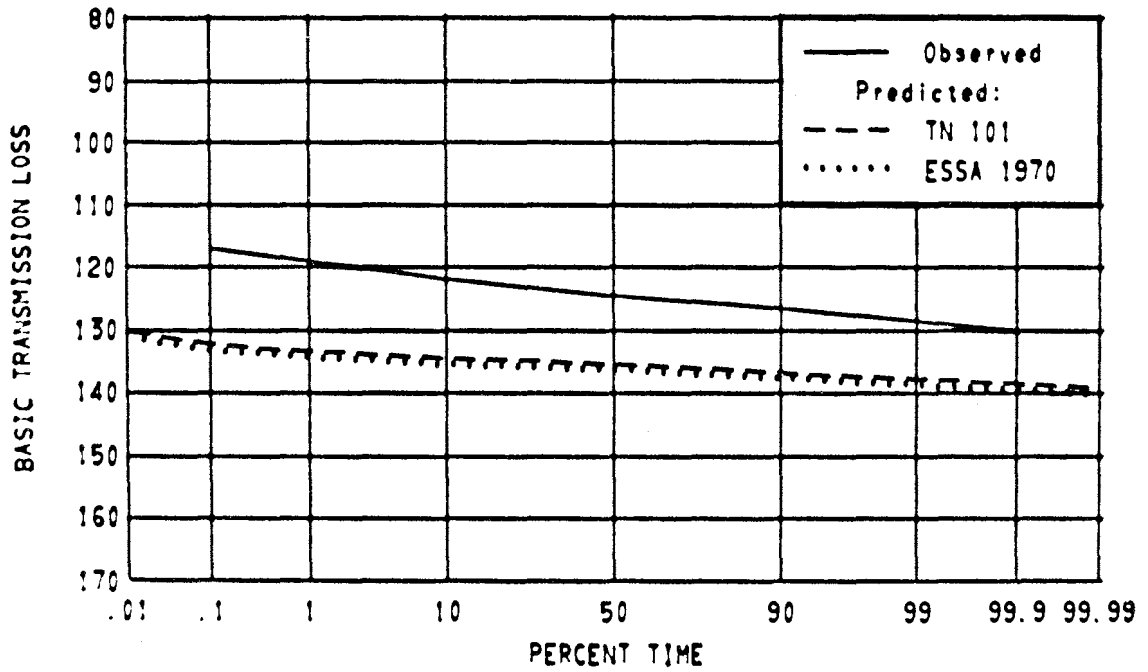
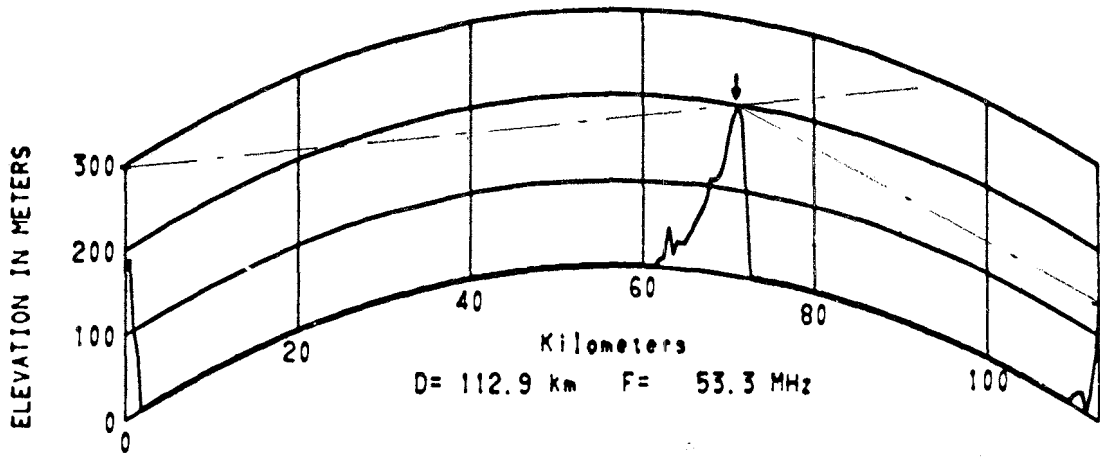


Figure 2.8 Path 2140

SUTTON COLDFIELD ENG - GREEN HAILEY ENG
 PATHS 2116 TO 2119, 2121 2122 2124

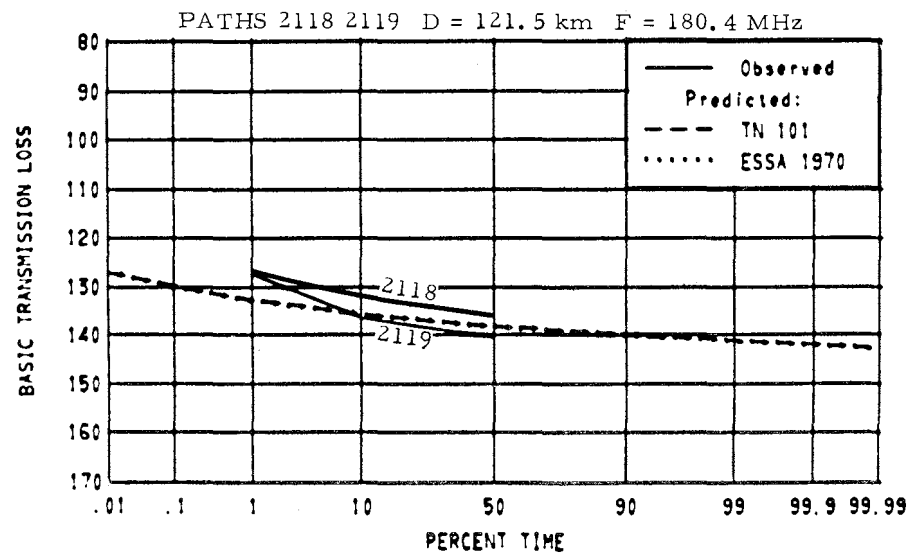
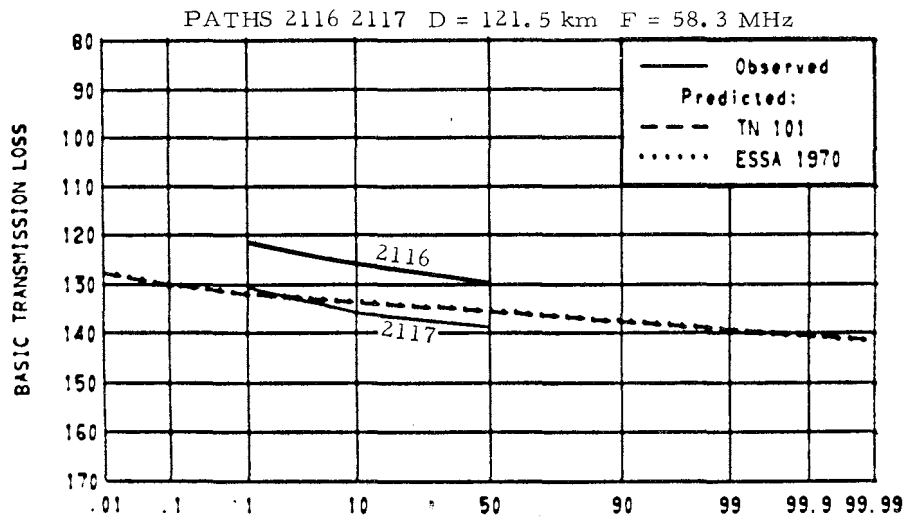
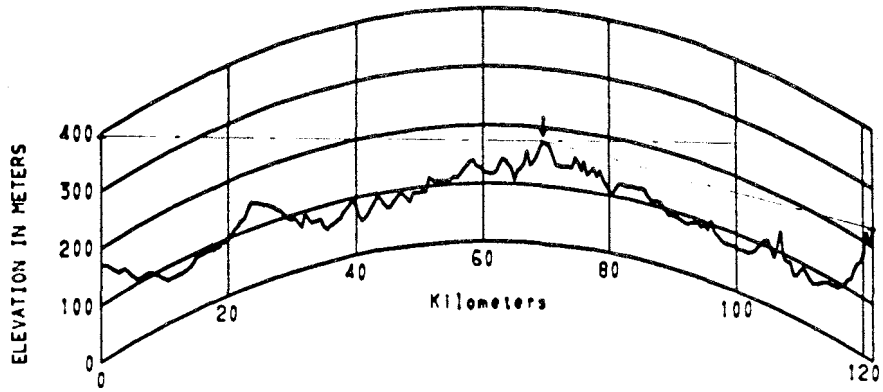


Figure 2.9 Paths 2116 to 2119

SUTTON COLDFIELD ENG - GREEN HAILEY ENG

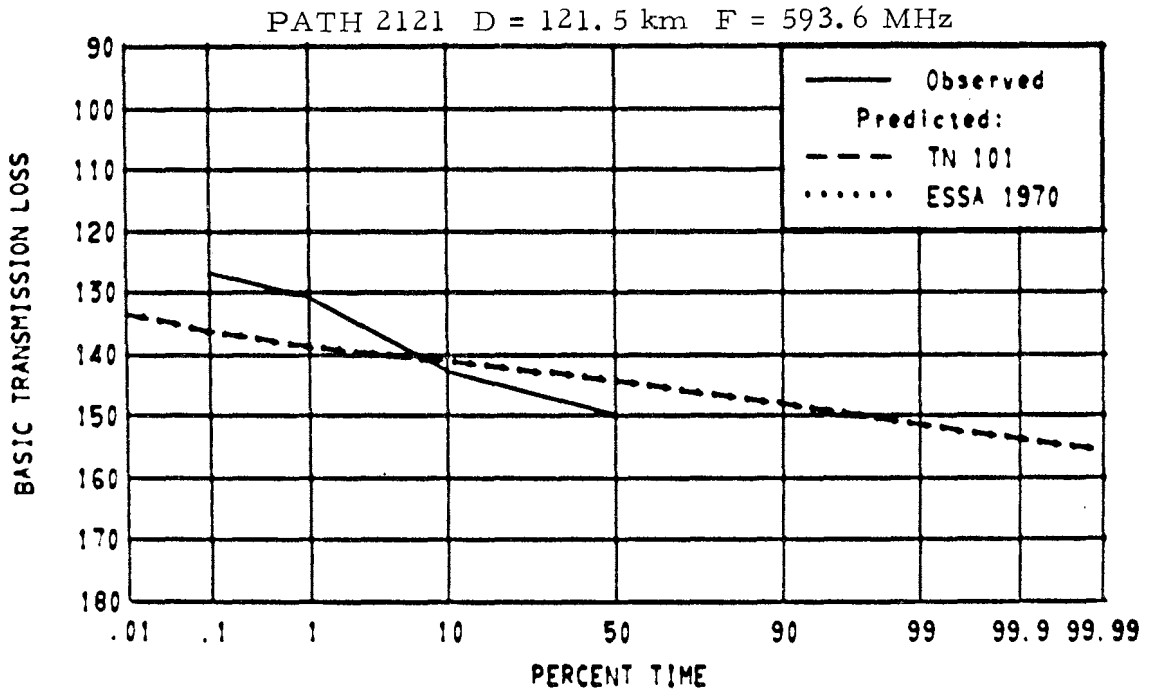
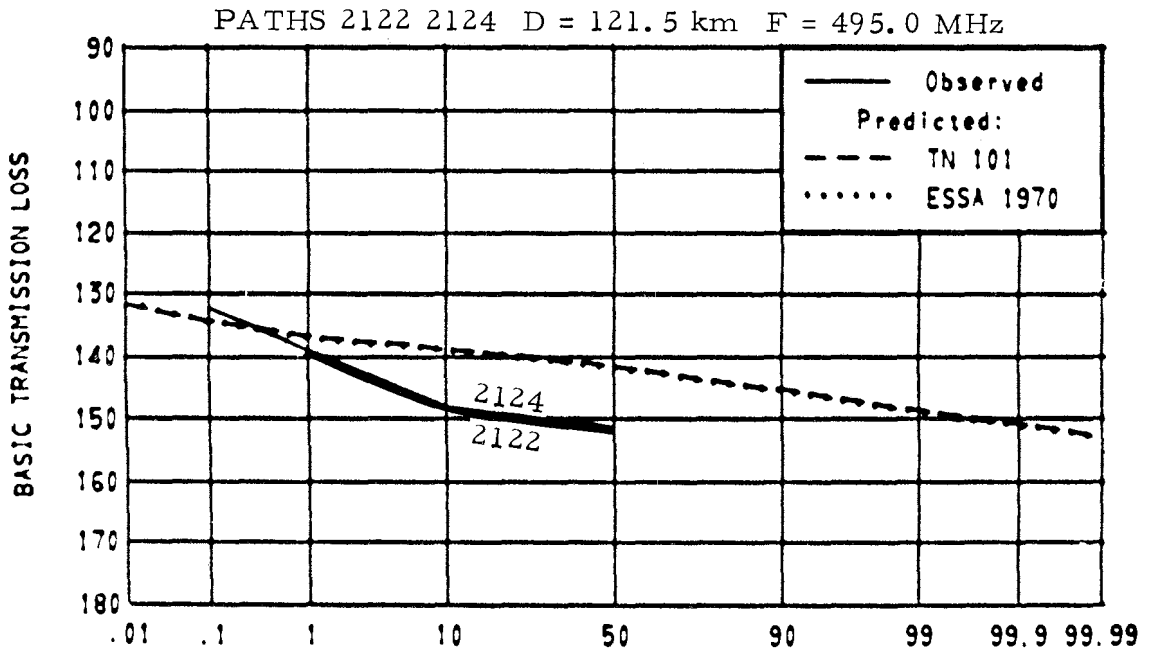


Figure 2.10 Paths 2121 2122 2124

PATH 1998 CRYSTAL PALACE ENG - STOW ON THE WOLD ENG

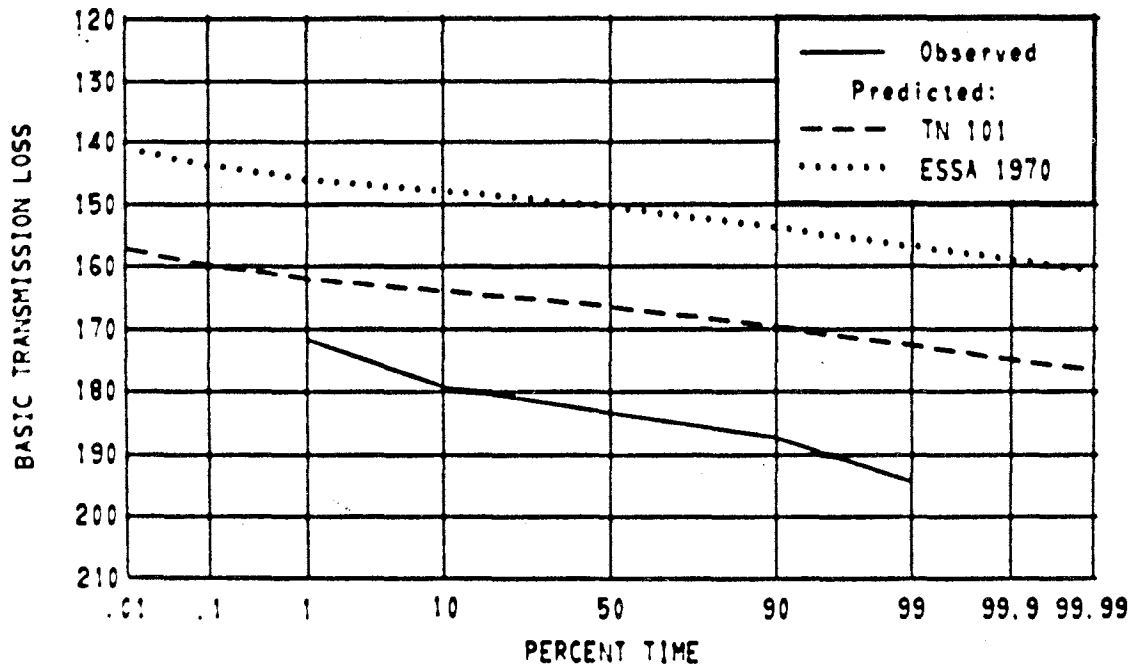
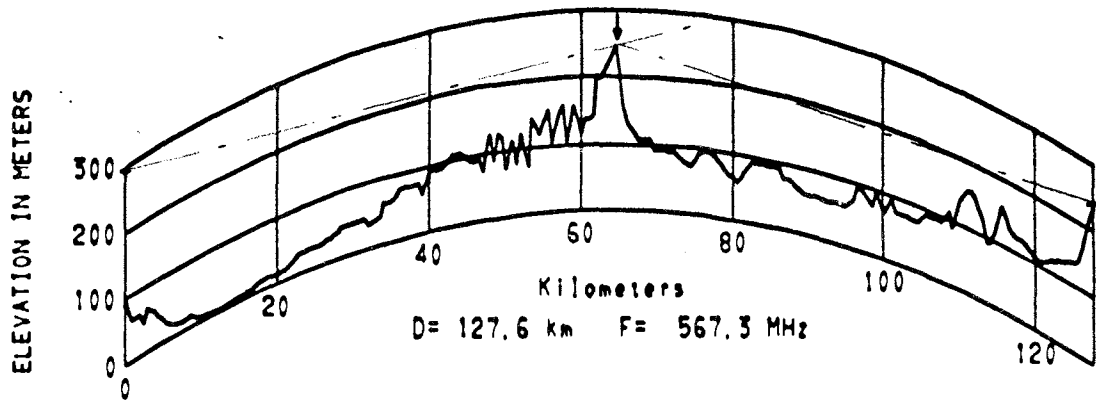


Figure 2.11 Path 1998

PATH 2155 WINTER HILL ENG - NEWTOWNARDS IRE

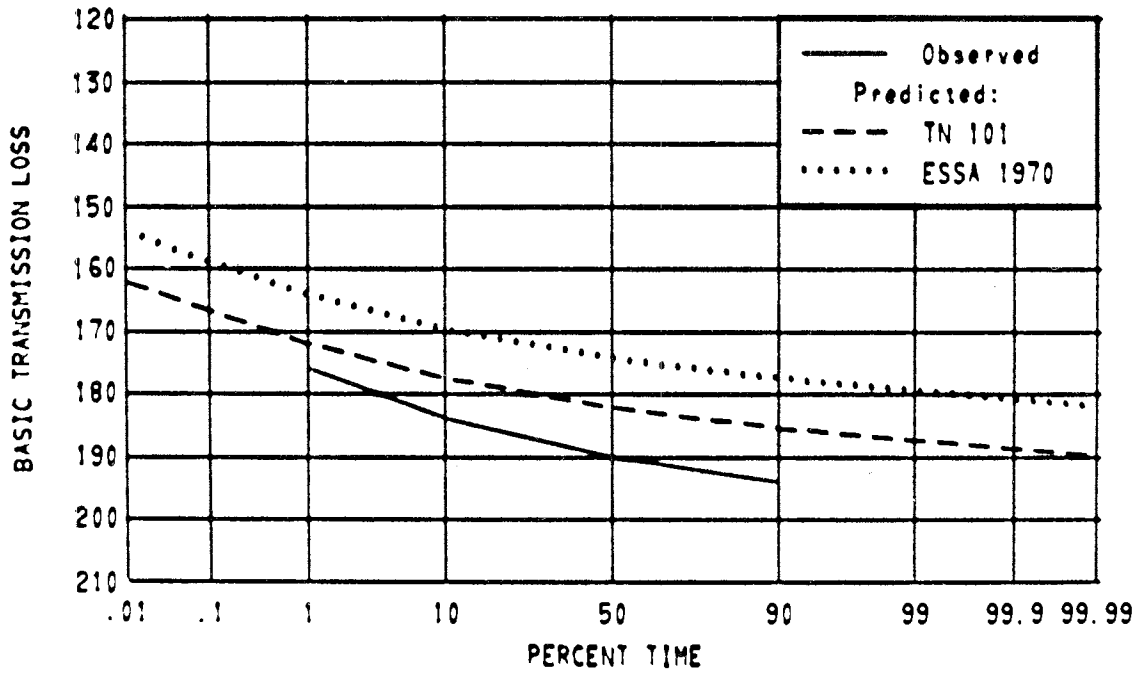
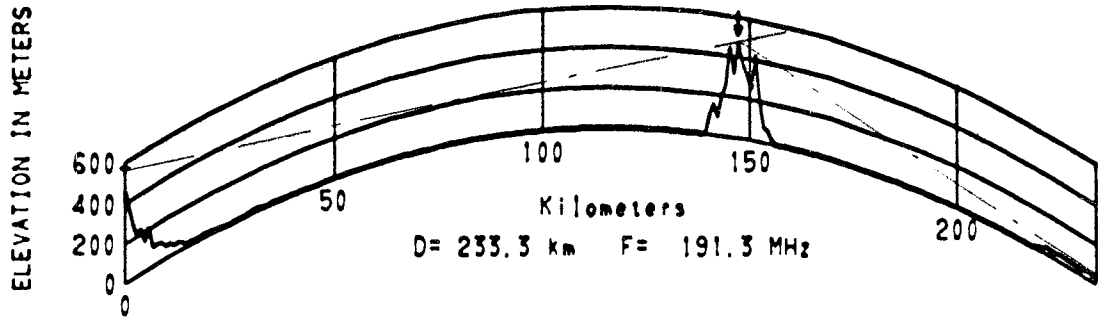
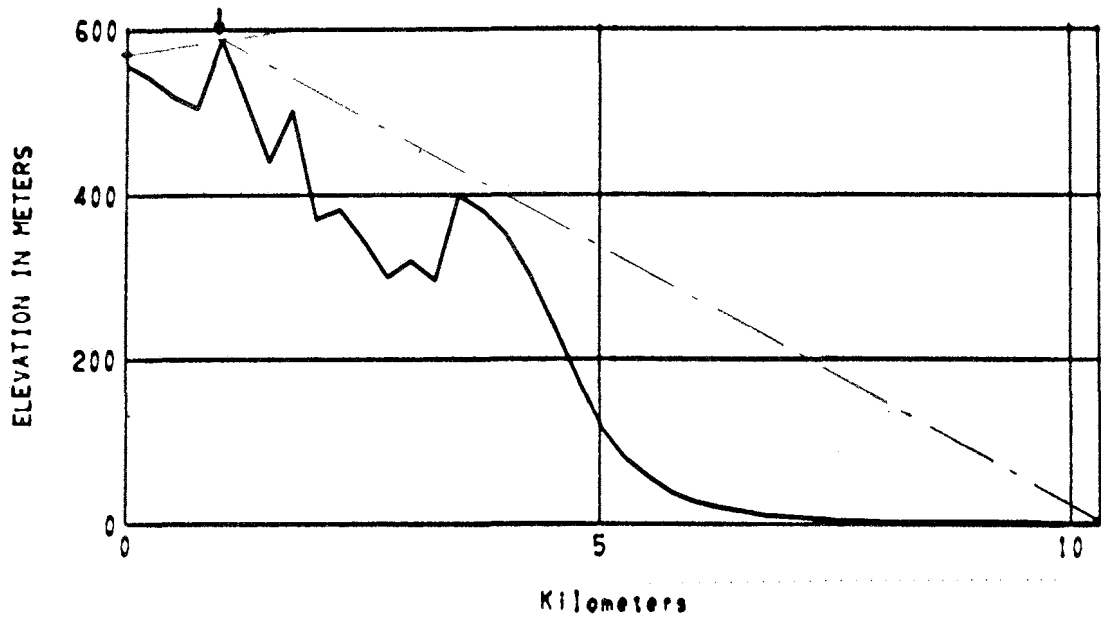


Figure 2.12 Path 2155

PATH 2242 SOFU JAPAN - [WAKUNI] JAPAN



D= 10.3 km F= 7273.4 MHz

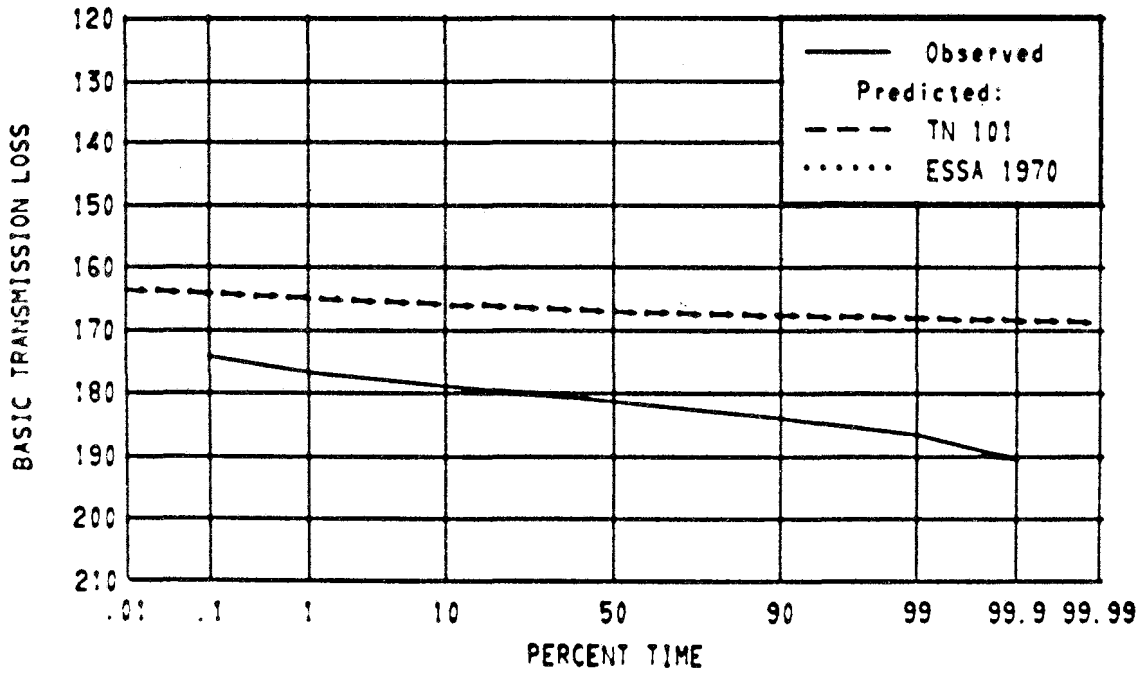


Figure 2.13 Path 2242

PATH 1536 FELDBERG/SCHWARZWALD W GER - SAVONA ITALY

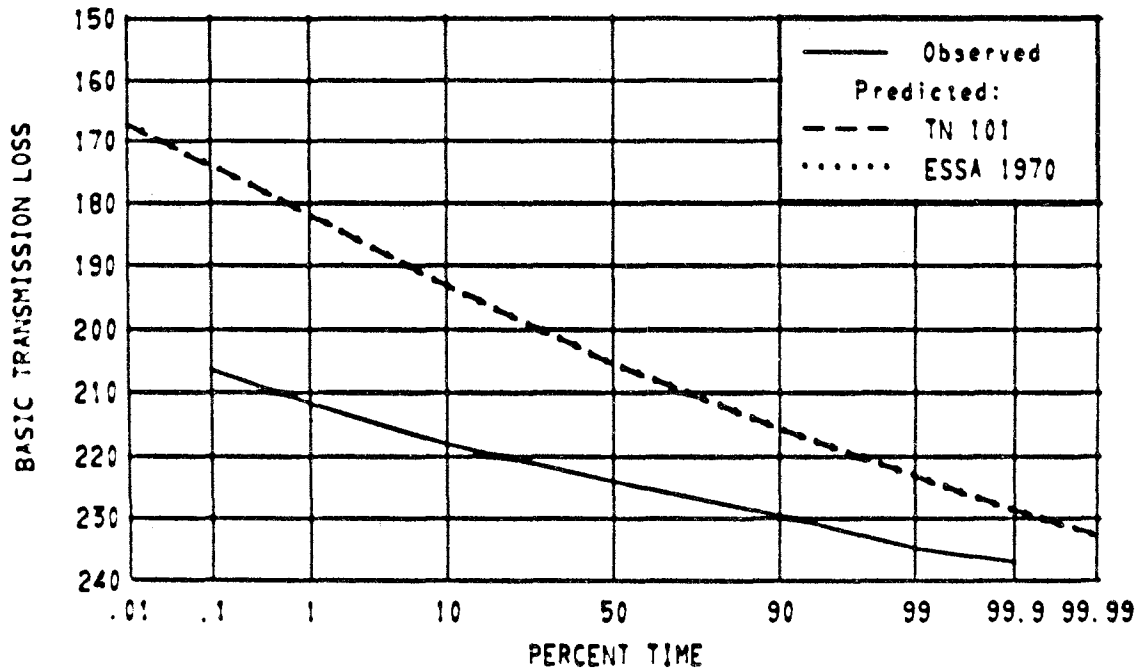
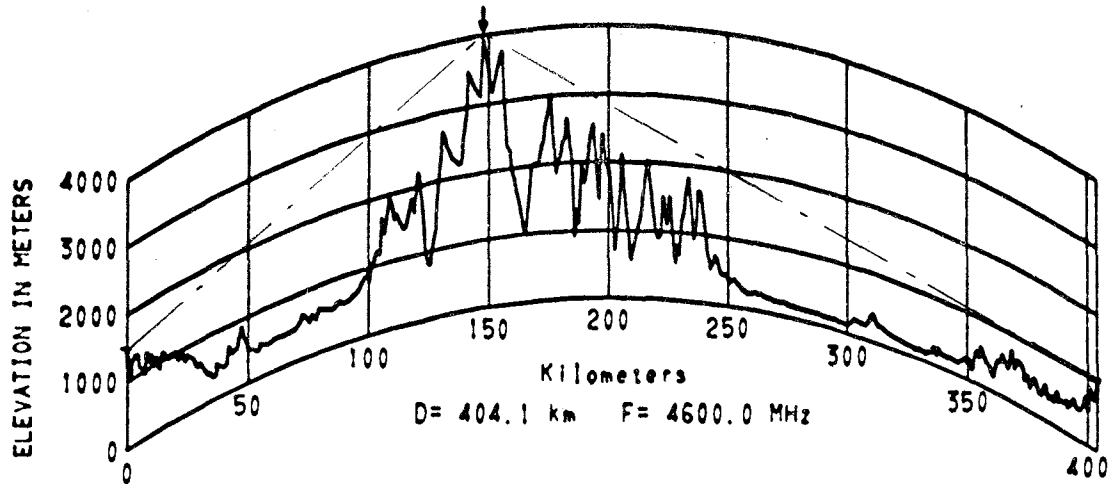


Figure 2.14 Path 1536

PATH 201 SAN FRANCISCO CALIF - LIVERMORE CALIF

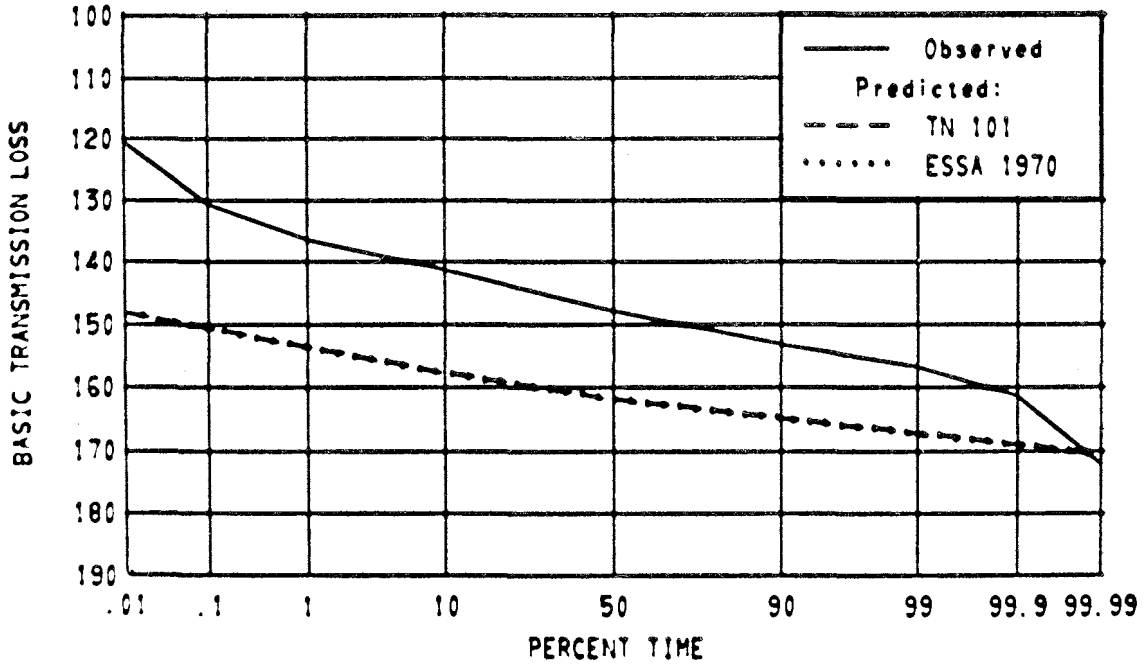
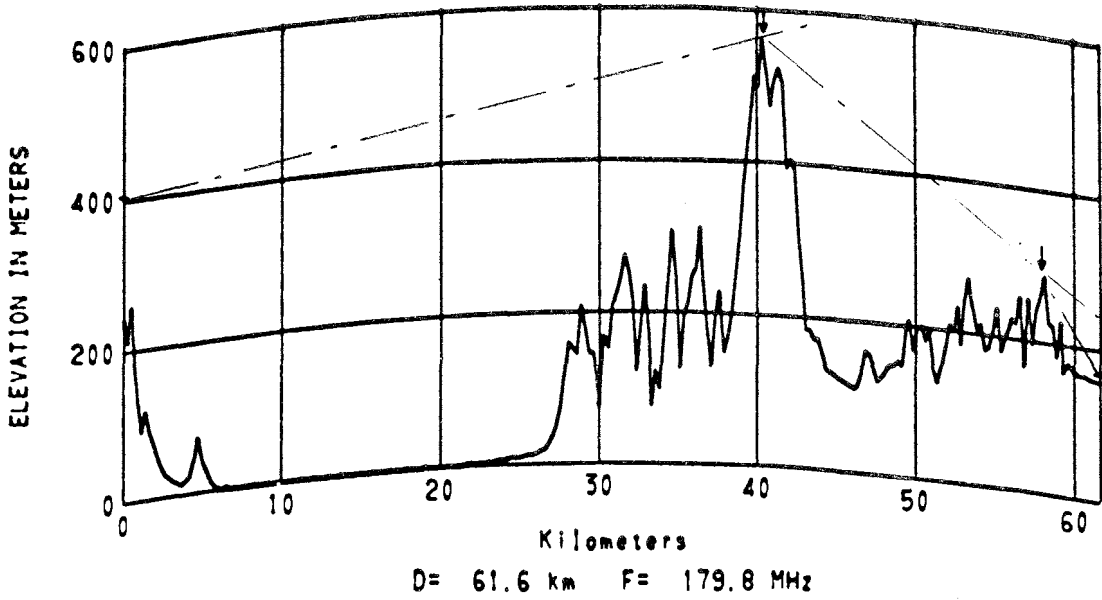
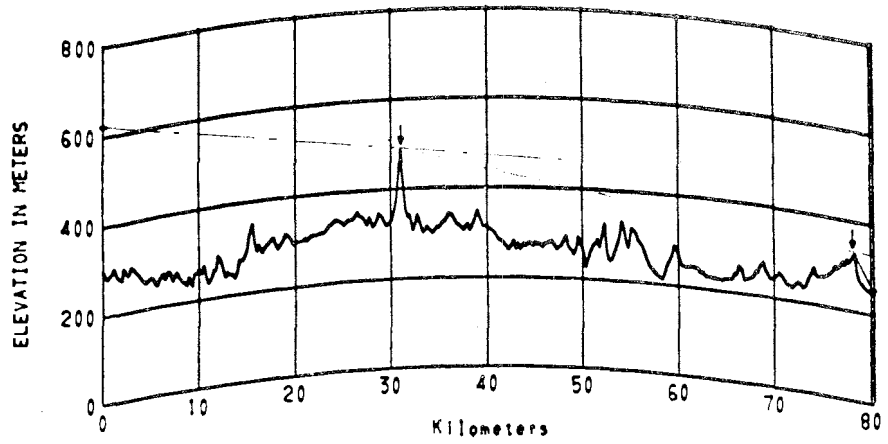
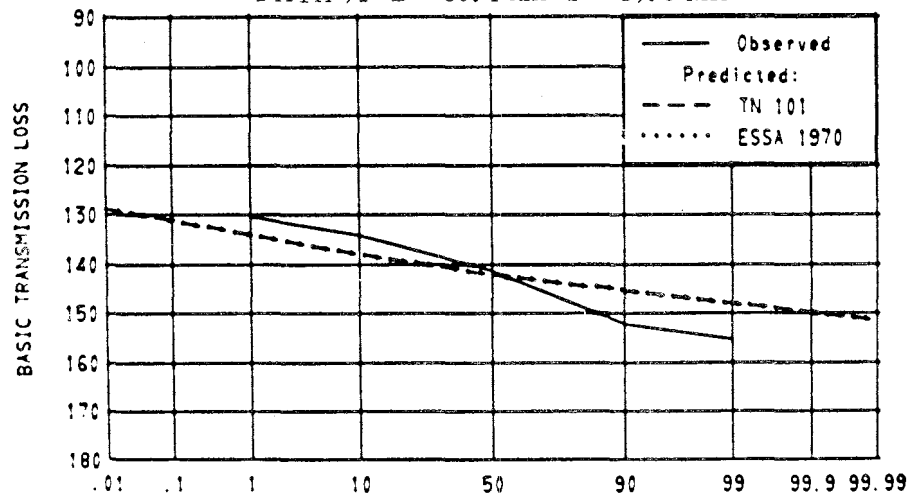


Figure 2.15 Path 201

PATHS 91 96 ATLANTA GA - ADAIRSVILLE GA



PATH 91 D = 80.4 km F = 59.8 MHz



PATH 96 D = 76.0 km F = 185.8 MHz

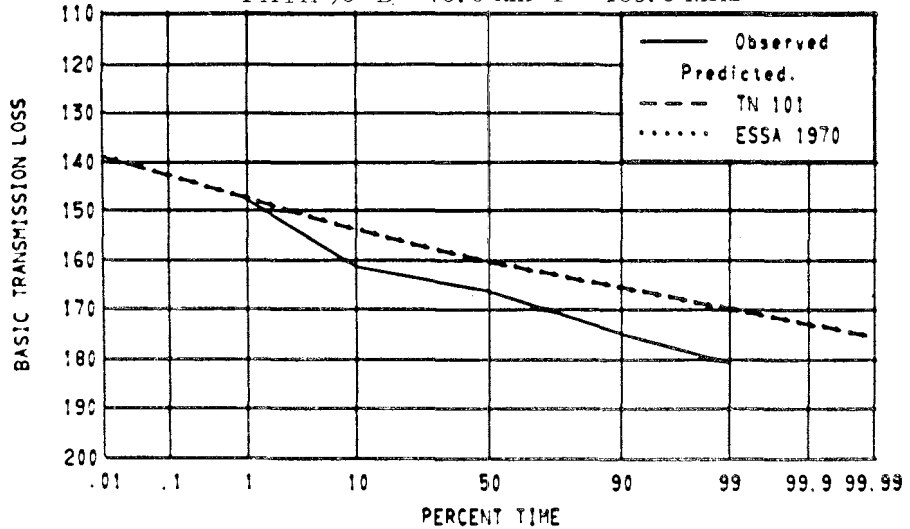


Figure 2.16 Paths 91 96

PATH 66 SACRAMENTO CALIF - LIVERMORE CALIF

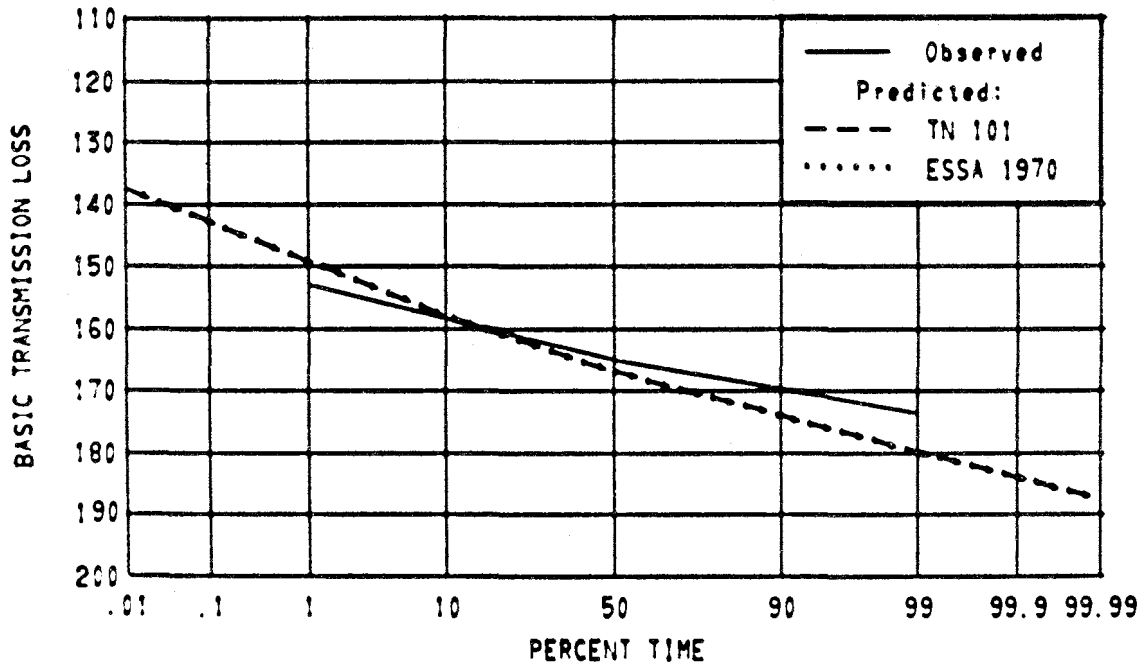
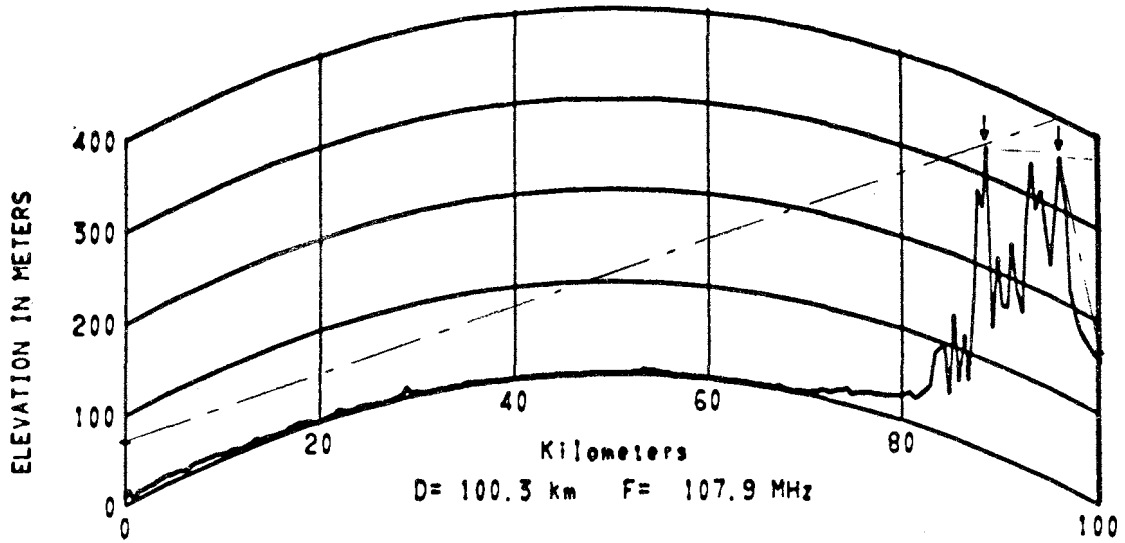


Figure 2.17 Path 66

PATH 6 SAN DIEGO CALIF - SANTA ANA CALIF

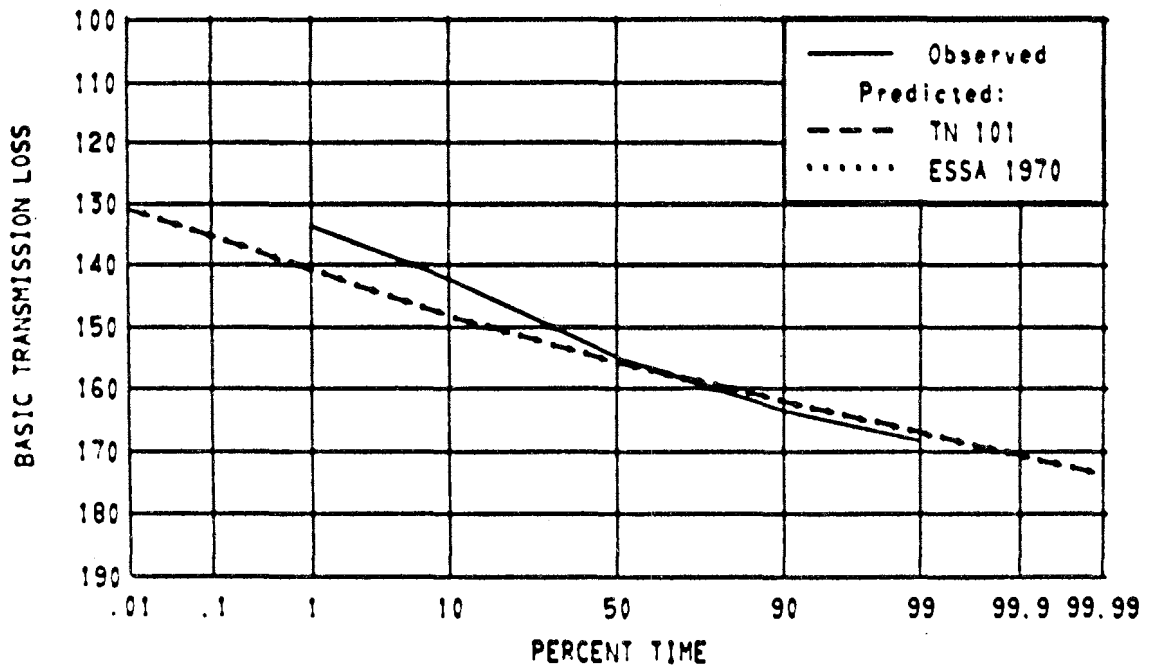
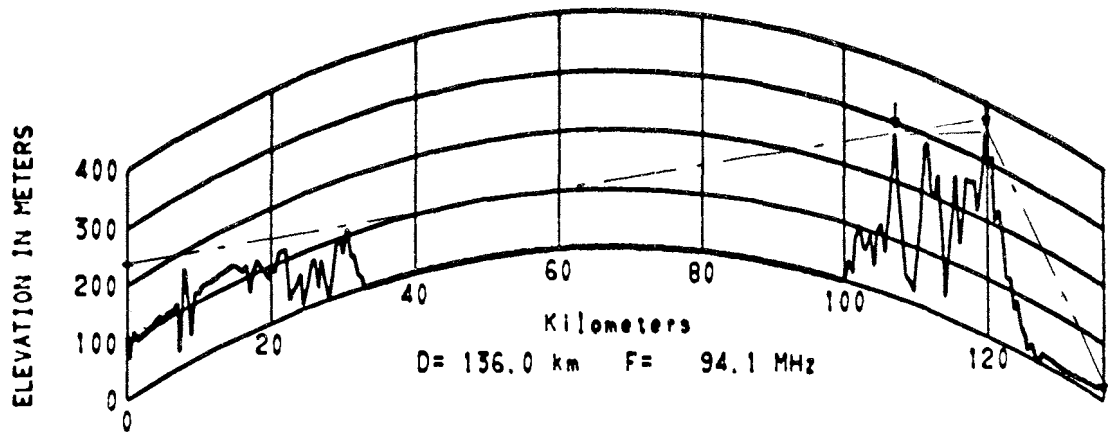


Figure 2.18 Path 6

PATHS 1702 1703 1712 1713 BLACKTAIL CANYON ARIZ - ELOY ARIZ

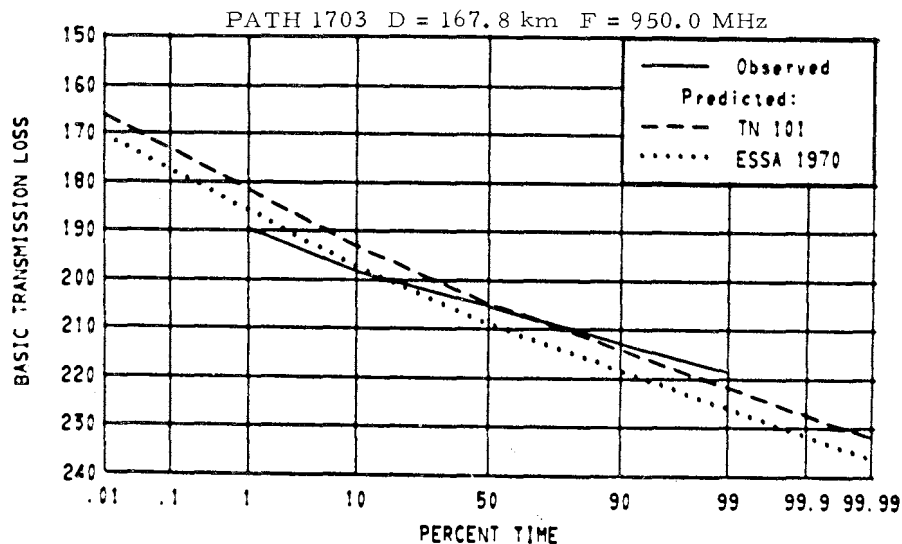
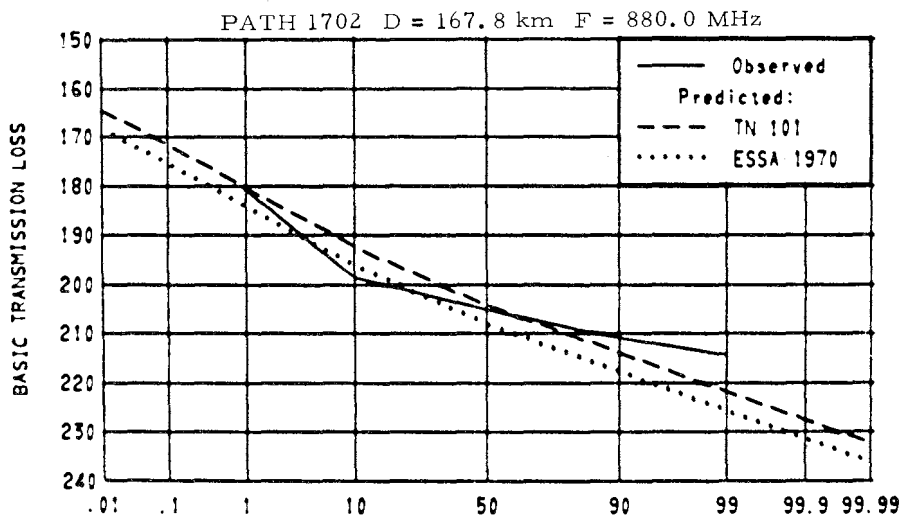
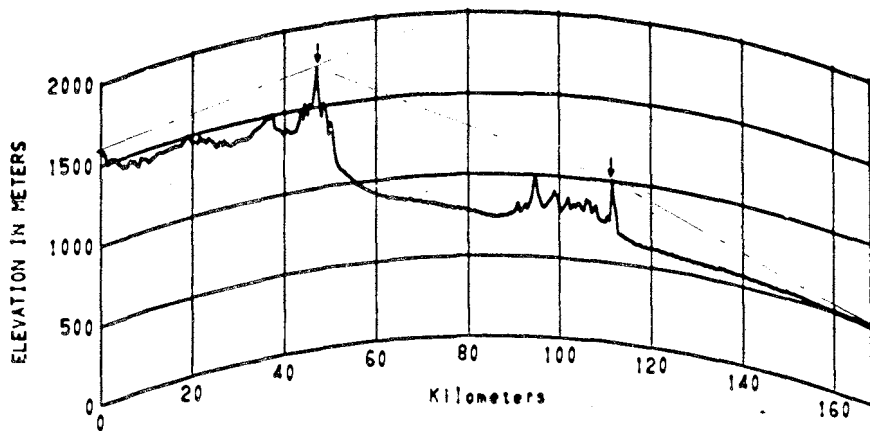


Figure 2.19 Paths 1702 1703

BLACKTAIL CANYON ARIZ - ELOY ARIZ

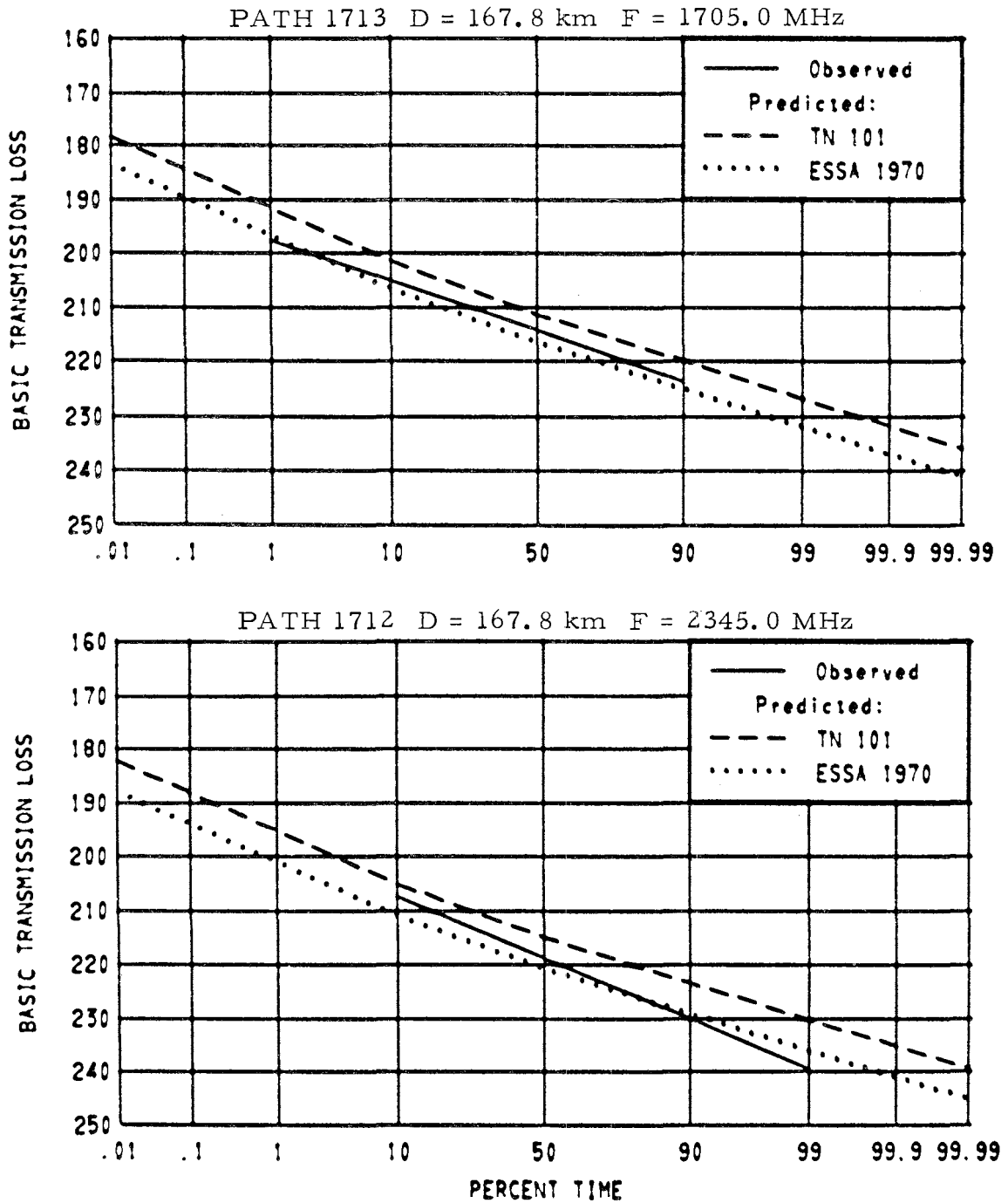


Figure 2.20 Paths 1712 1713

PATH 16 FRESNO CALIF - LIVERMORE CALIF

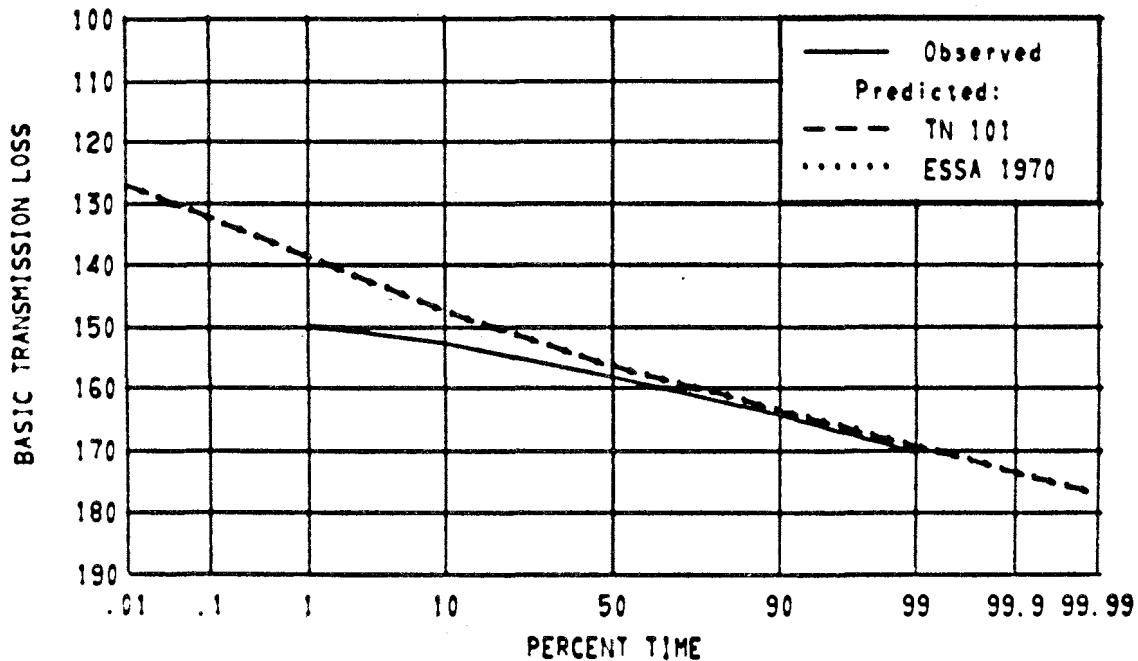
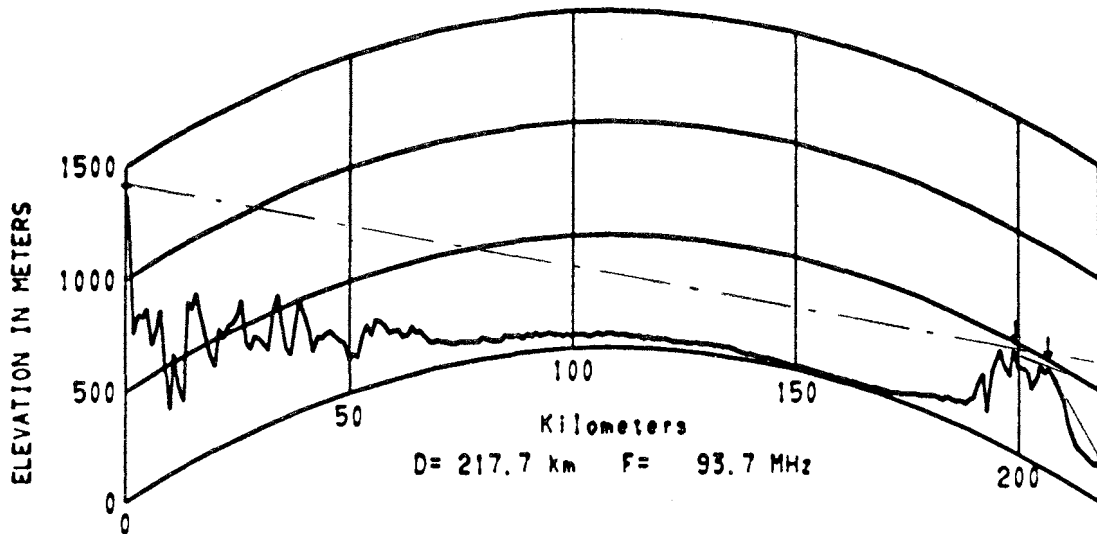


Figure 2.21 Path 16

PATH 7 SEATTLE WASH - PORTLAND ORE

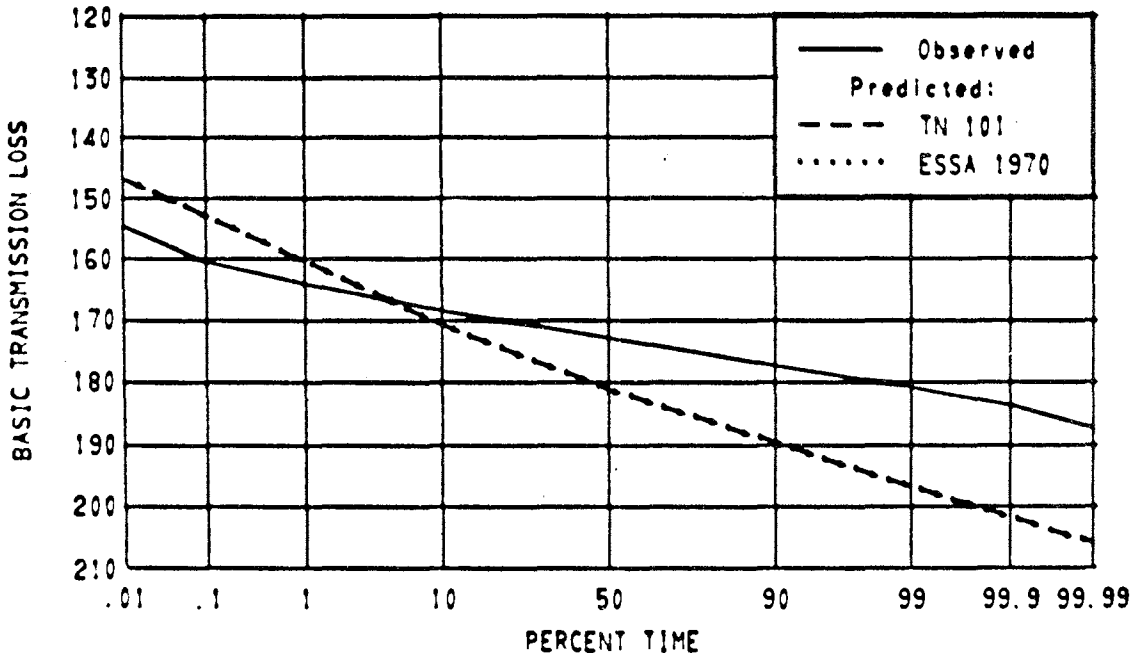
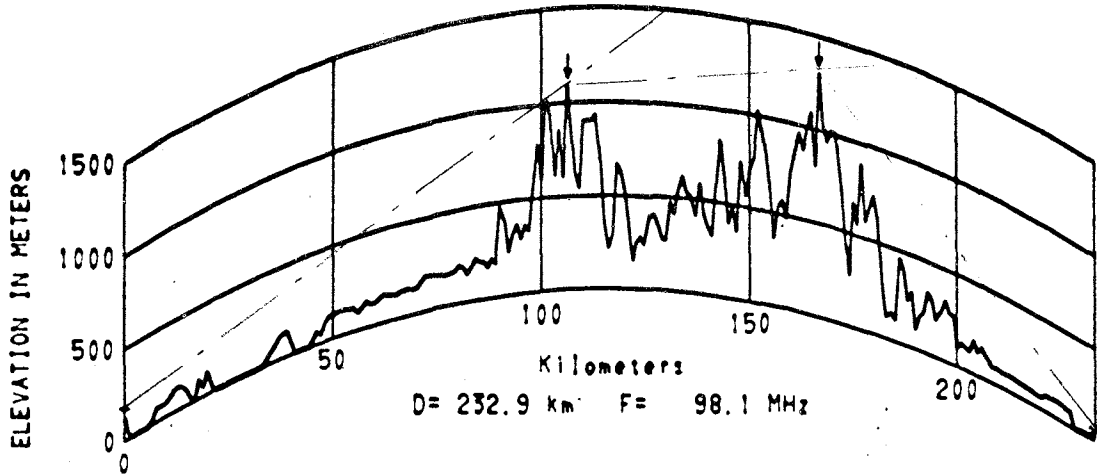
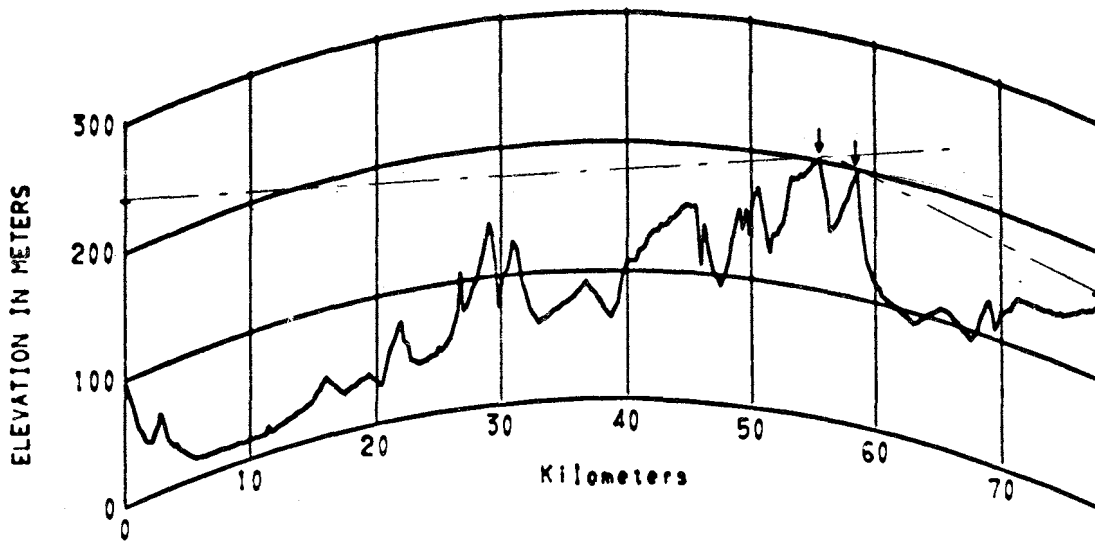


Figure 2.22 Path 7

PATHS 1979 2200 CRYSTAL PALACE ENG - MURSLEY ENG



PATHS 1979 2200 D = 77.8 km F = 41.5, 573.3 MHz

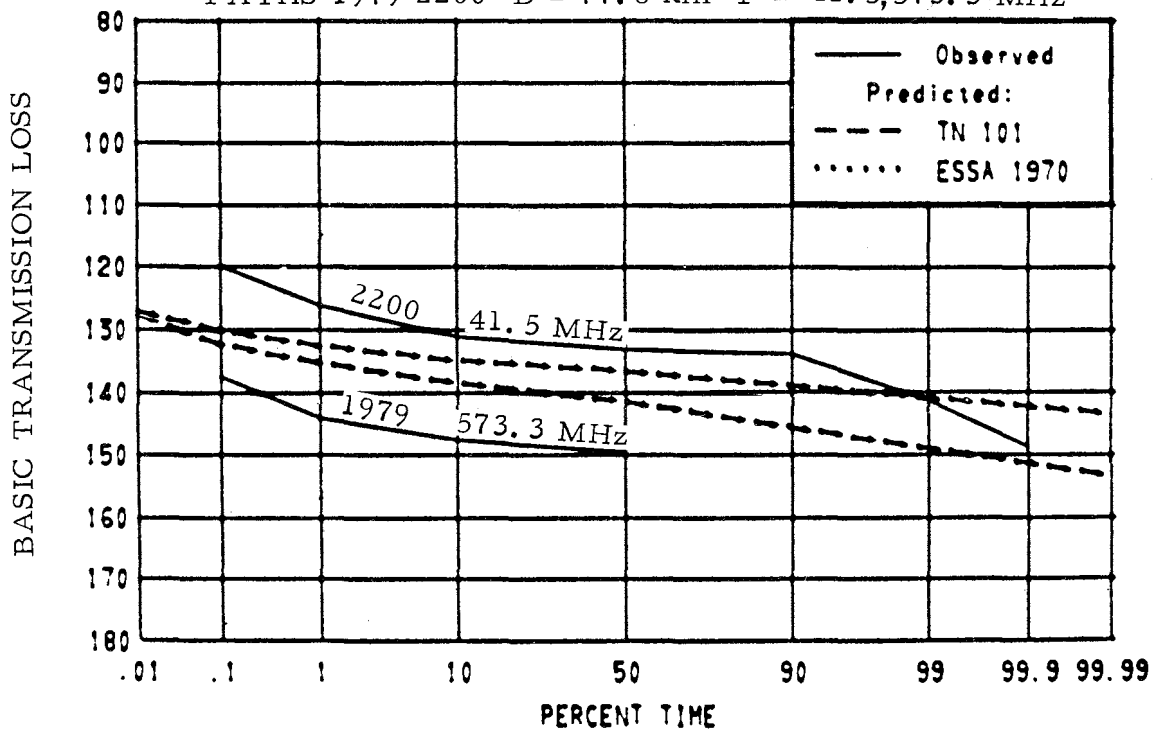


Figure 2.23 Paths 1979 2200

PATH 2161 CRYSTAL PALACE ENG - OXFORD ENG

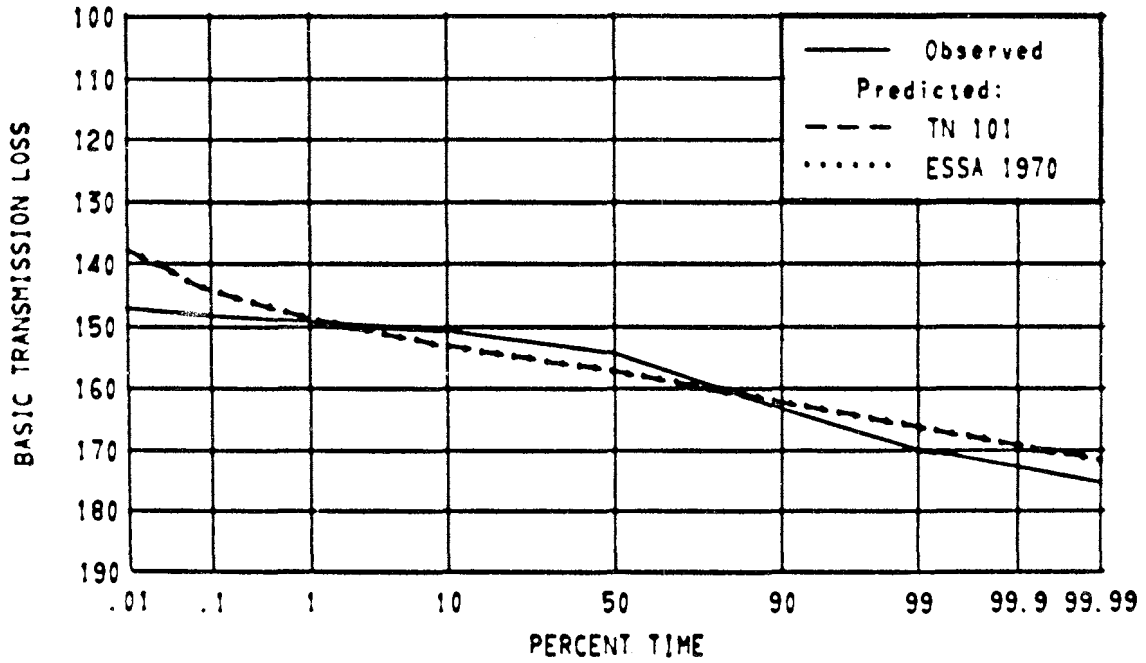
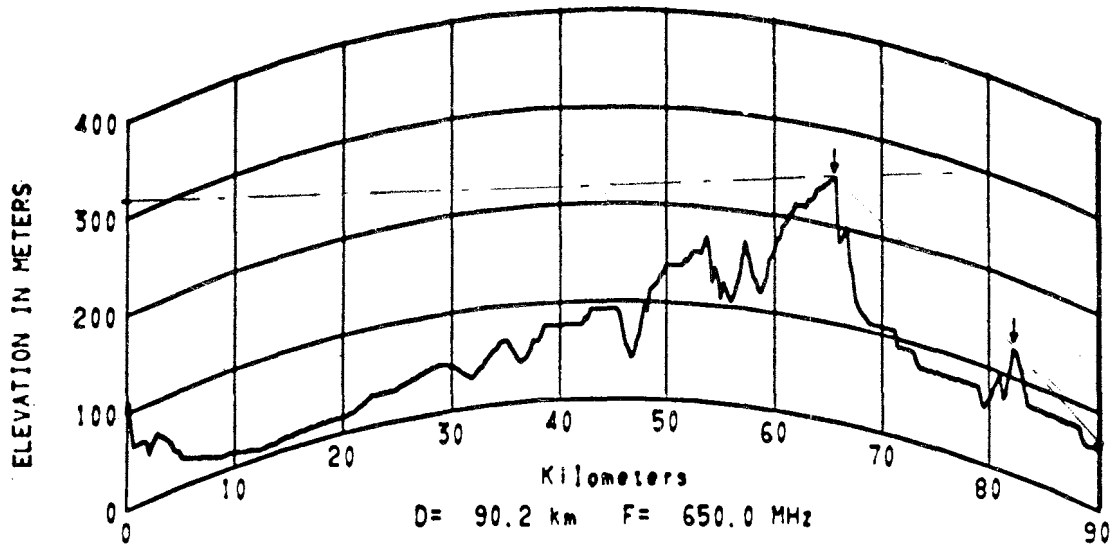


Figure 2.24 Path 2161

PATHS 1996 2162 CRYSTAL PALACE ENG - BANBURY ENG

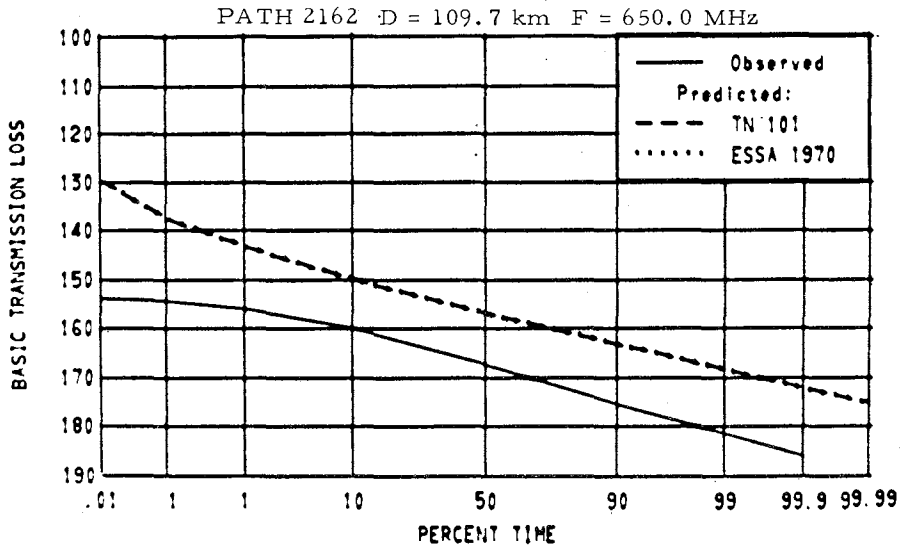
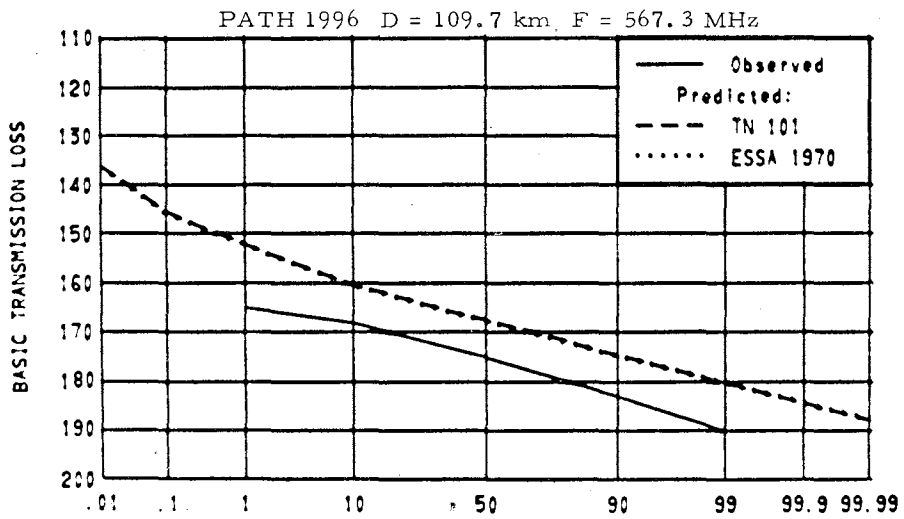
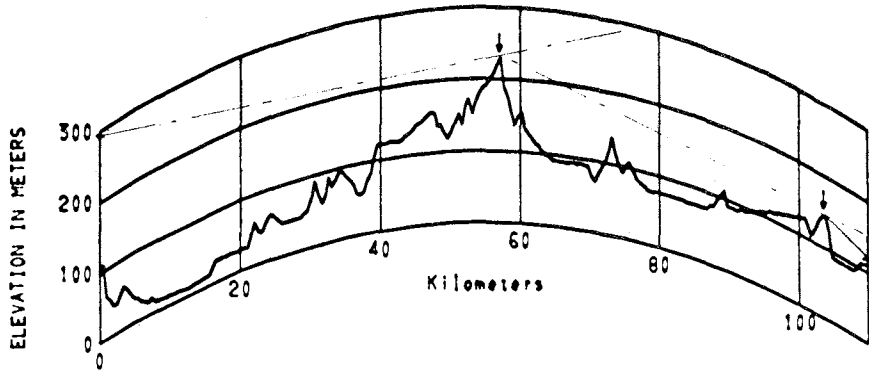


Figure 2.25 Paths 1996 2162

PATH 2172 CROYDON ENG • BANBURY ENG

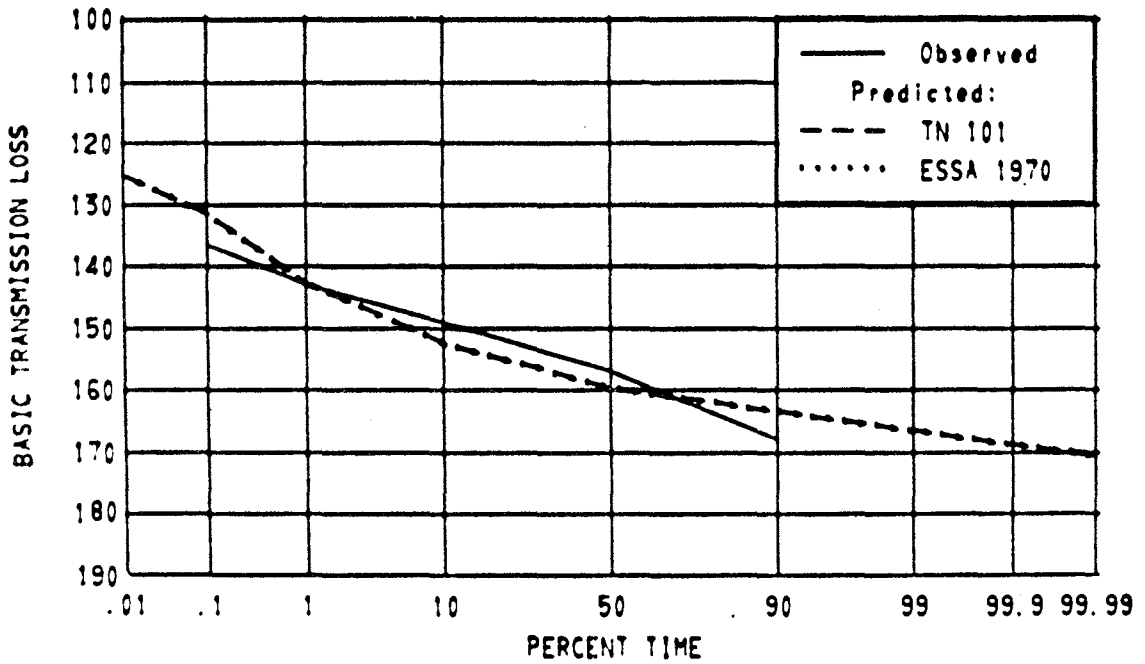
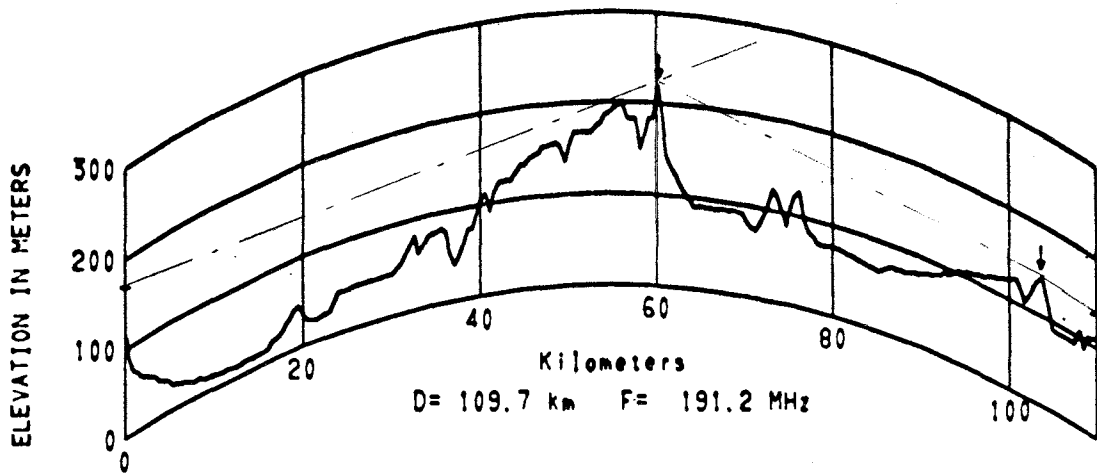


Figure 2.26 Path 2172

PATH 2153 WINTER HILL ENG - BALLYWALTER IRE

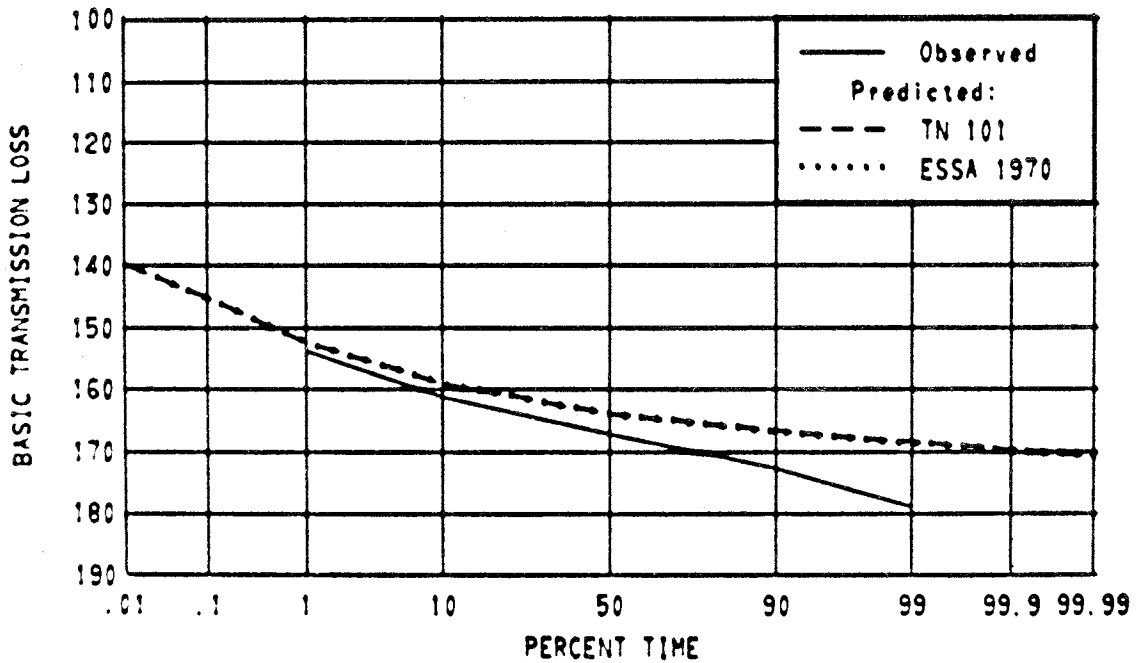
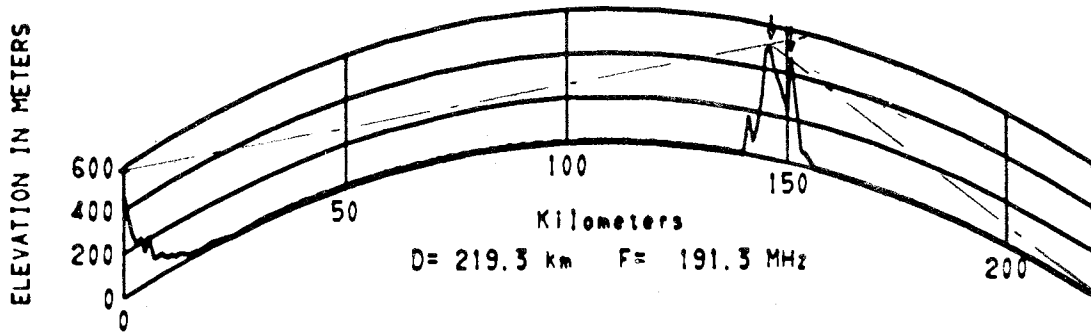


Figure 2.27 Path 2153

PATH 2237 FUCHU JAPAN - ZAMA JAPAN

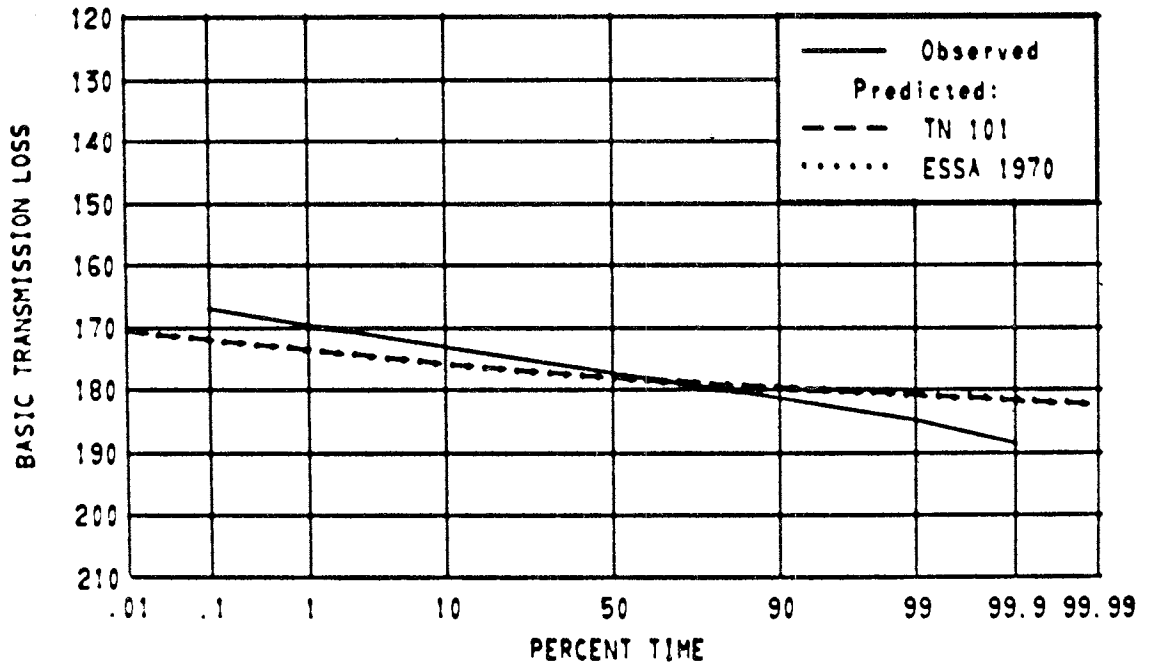
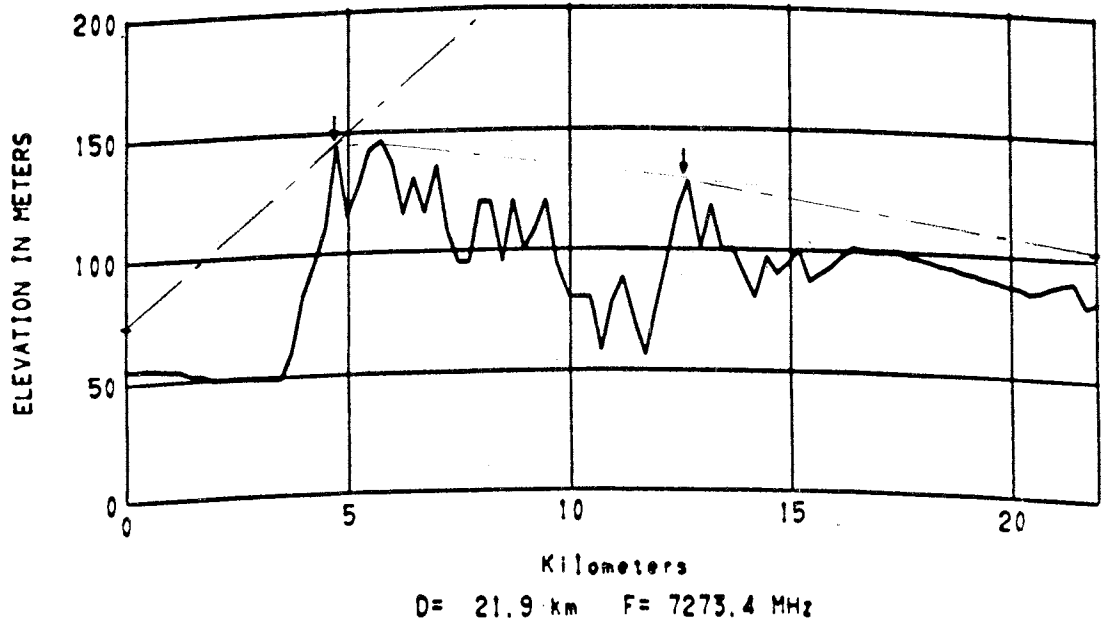


Figure 2.28 Path 2237

PATH 2238 DRAKE JAPAN - ZAMA JAPAN

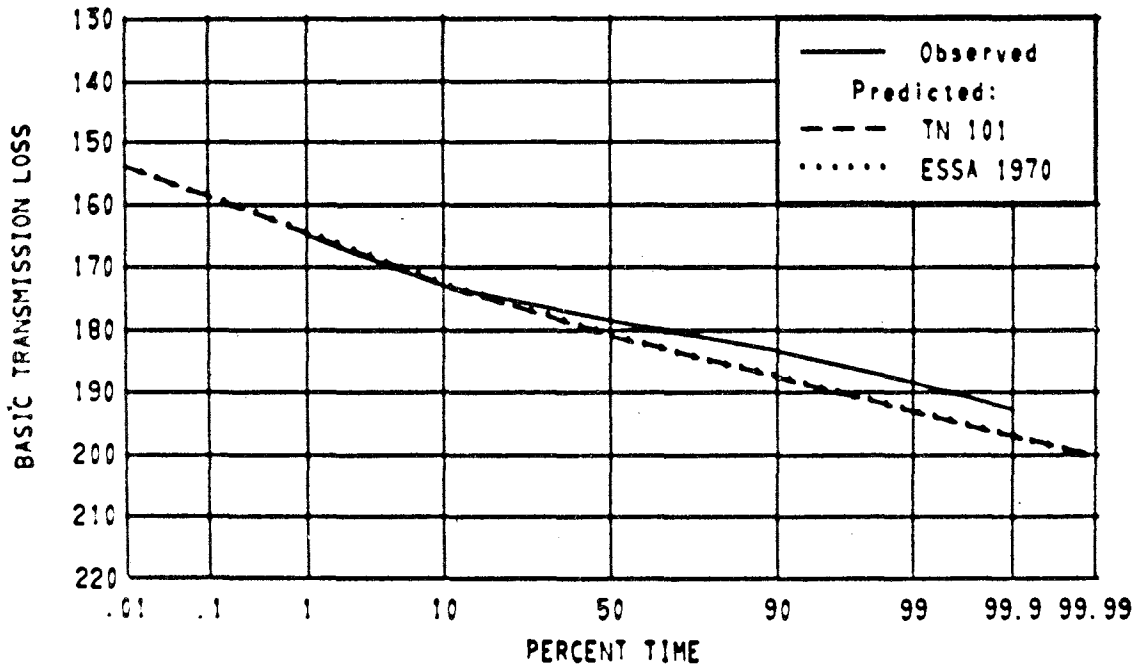
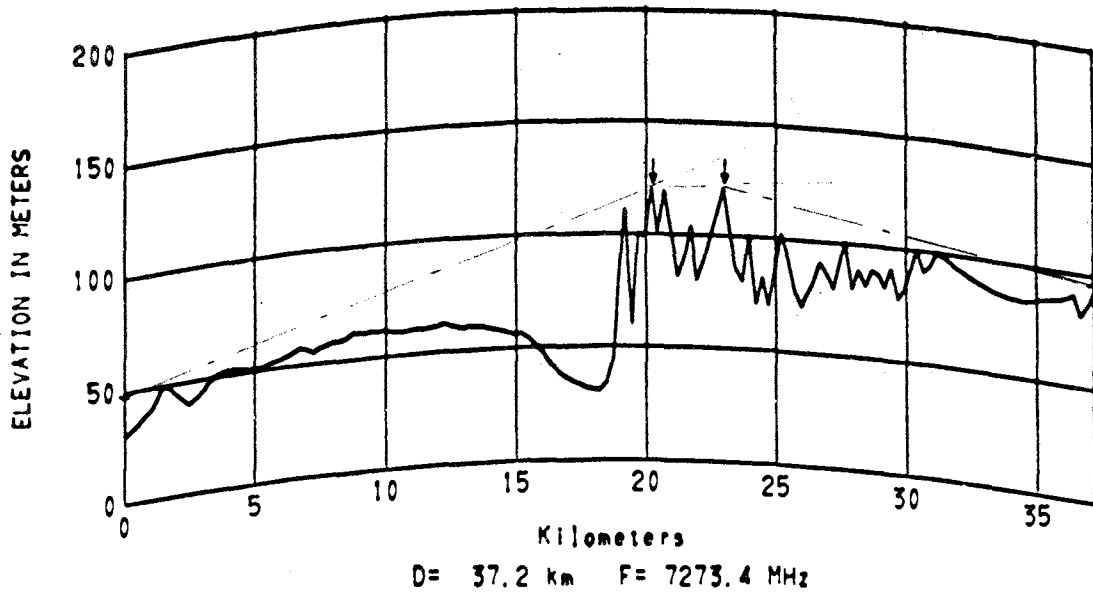


Figure 2.29 Path 2238

PATHS 2250 2251 KOKUBUNJI JAPAN - ASAO JAPAN

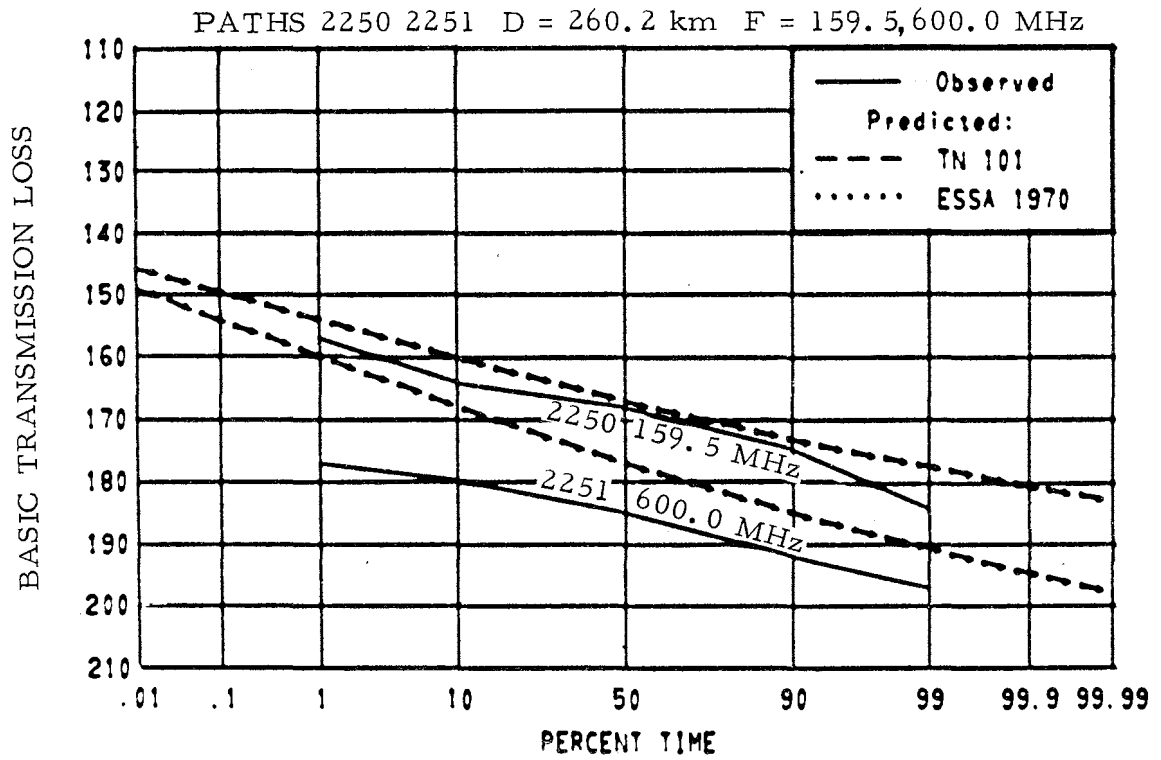
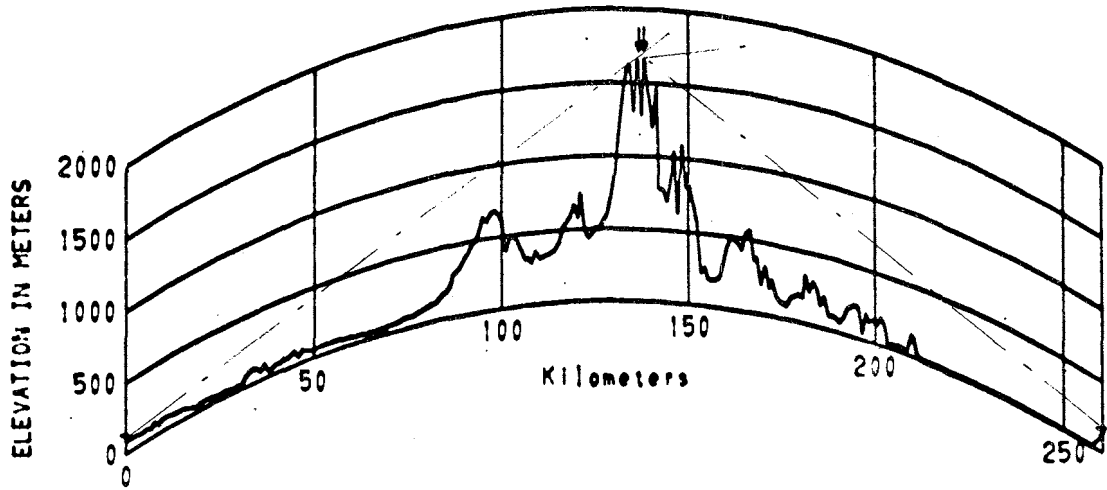


Figure 2.30 Paths 2250 2251

PATH 92 ATLANTA GA - FORSYTH GA

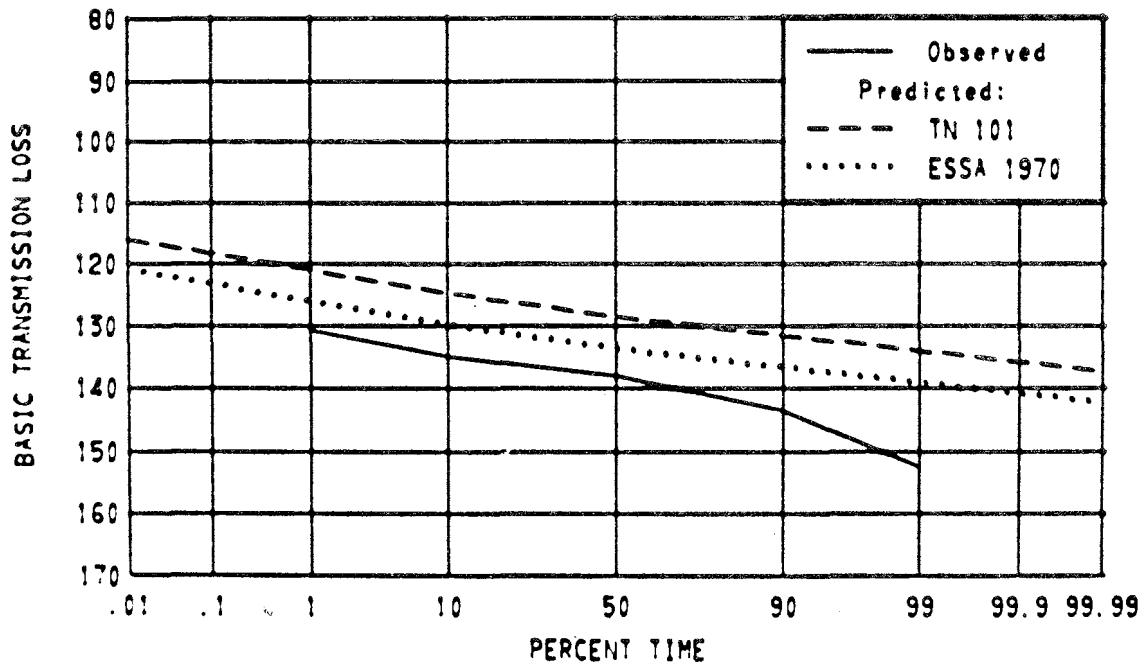
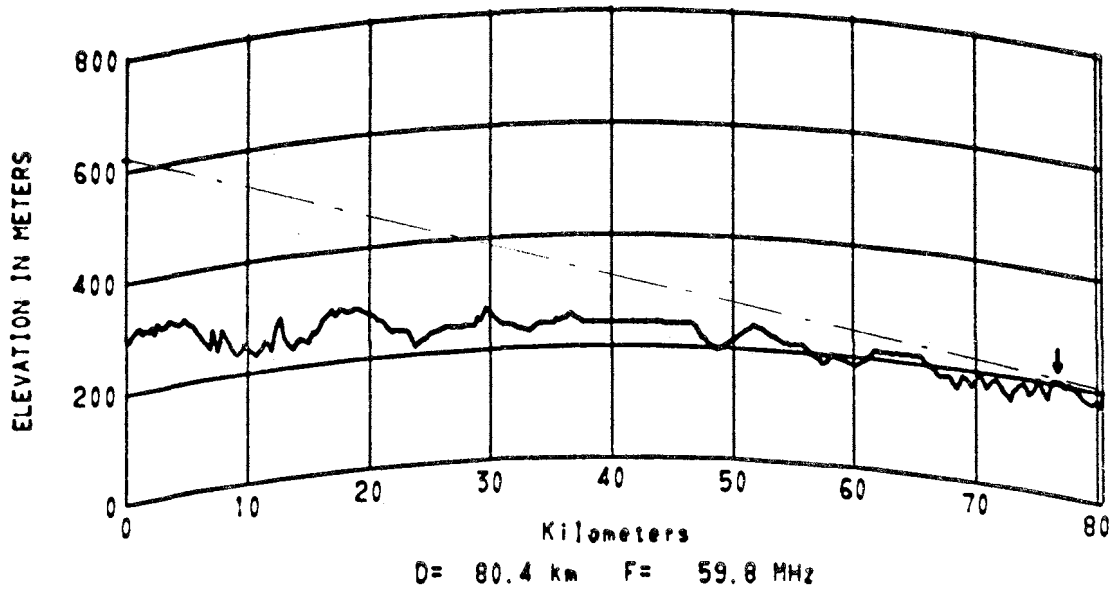


Figure 2.31 Path 92

PATHS 332 352 372 CHEYENNE MTN B COLO - KARVAL COLO

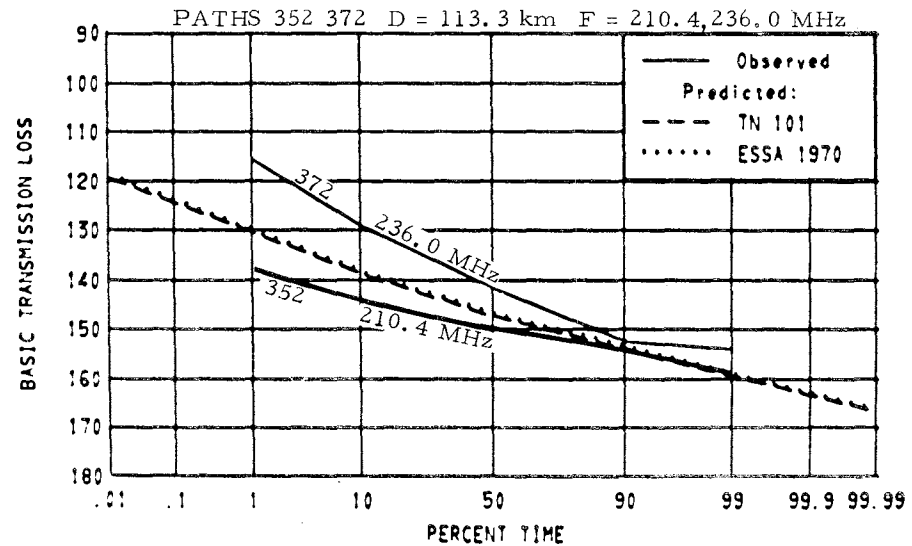
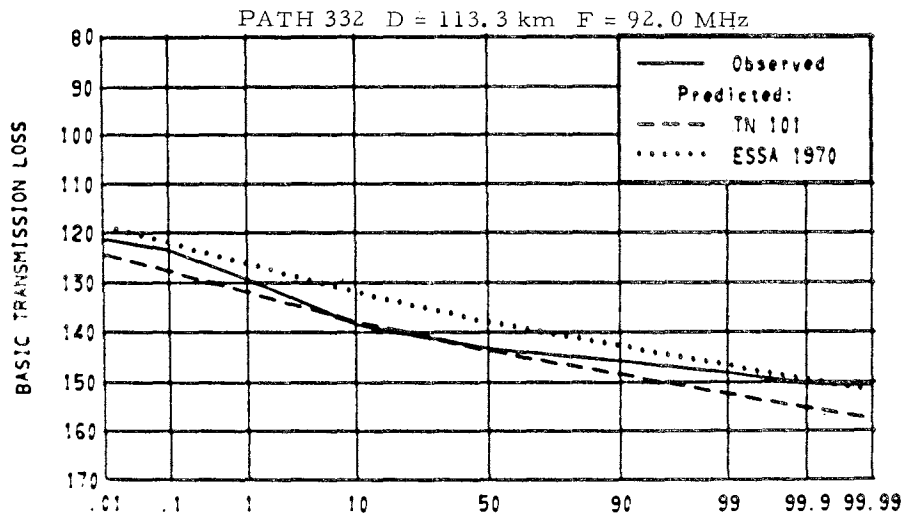
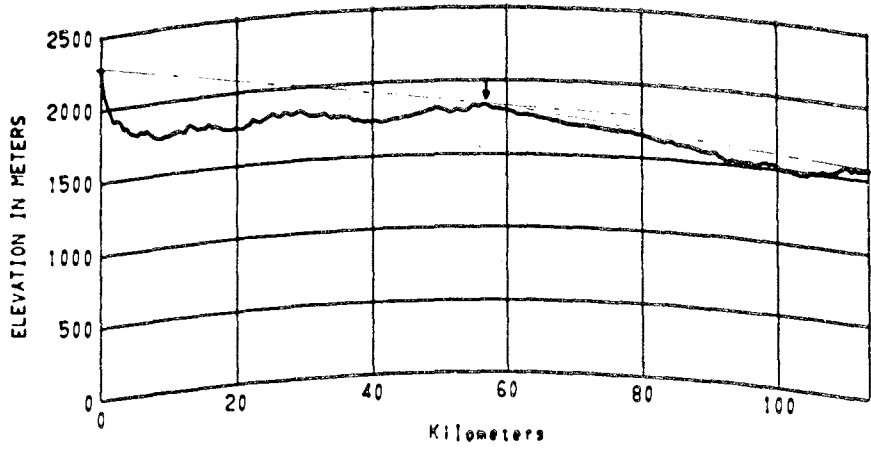


Figure 2.32 Paths 332 352 372

PATHS 254 274 294 314 CHEYENNE MTN S COLO - HASWELL COLO

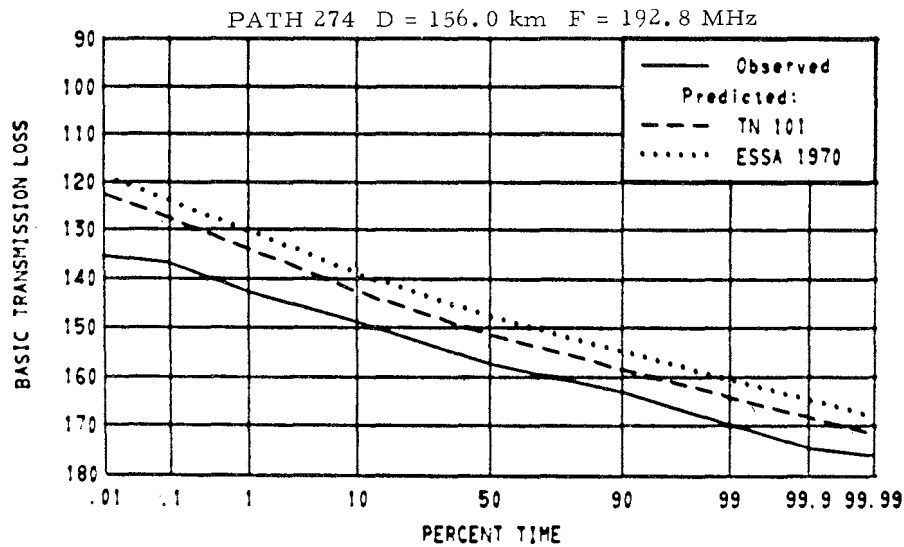
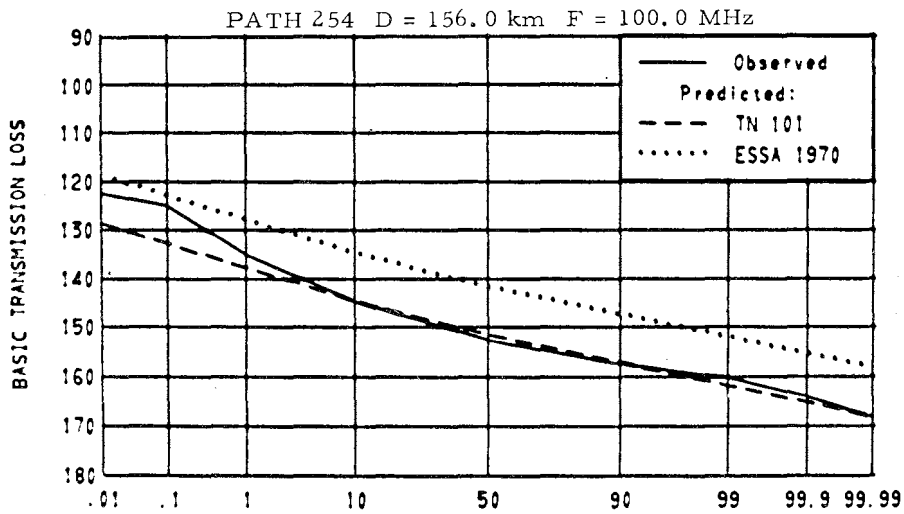
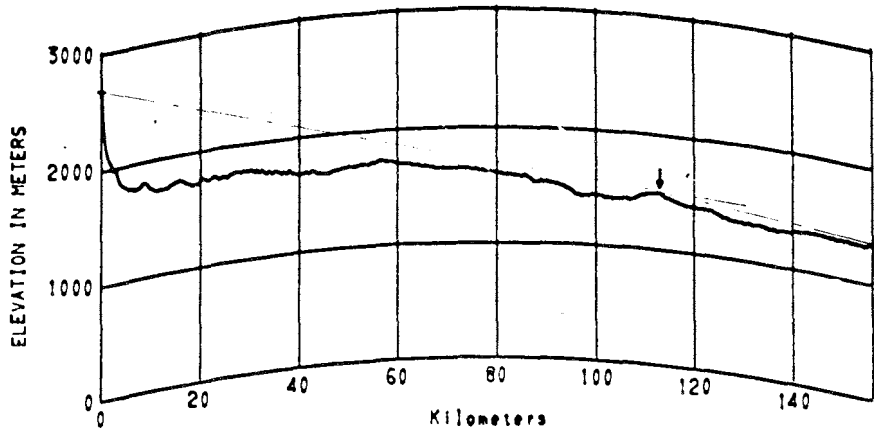
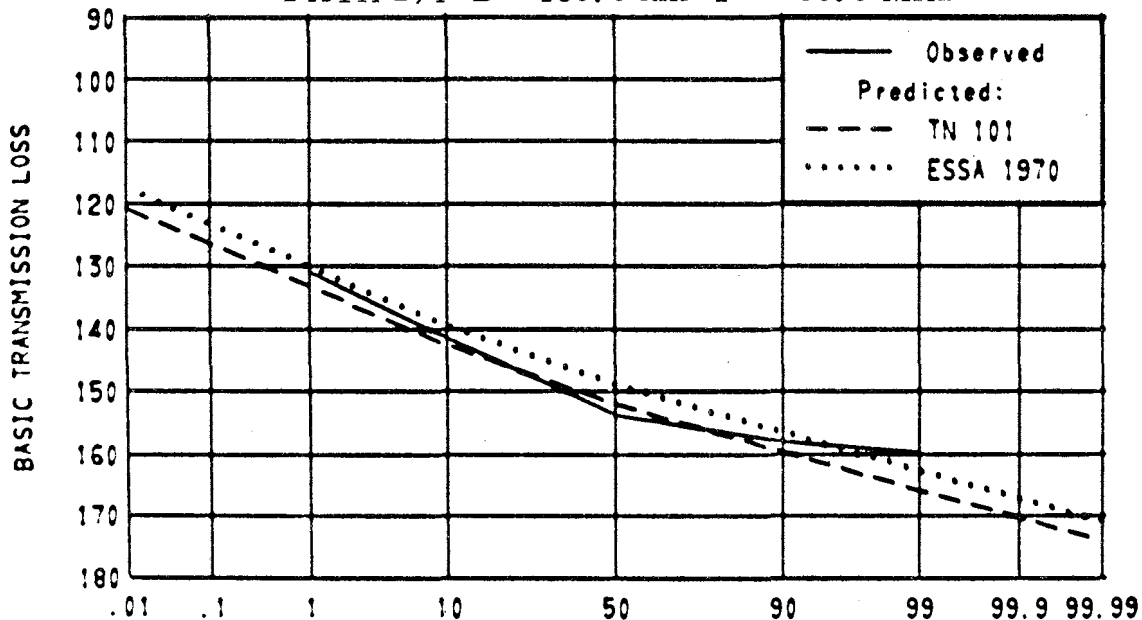


Figure 2.33 Paths 254 274

CHEYENNE MTN S COLO - HASWELL COLO

PATH 294 D = 156.0 km F = 230.0 MHz



PATH 314 D = 156.0 km F = 1046.0 MHz

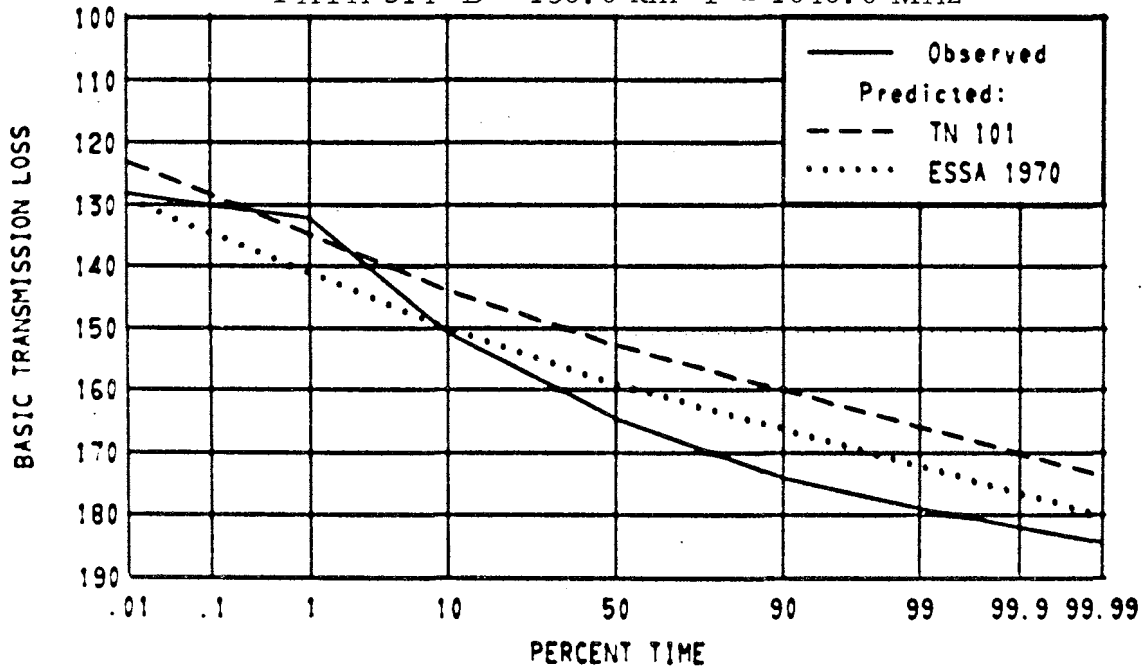


Figure 2.34 Paths 294 314

PATH 2107 MENDLESHAM ENG - PETERBOROUGH ENG

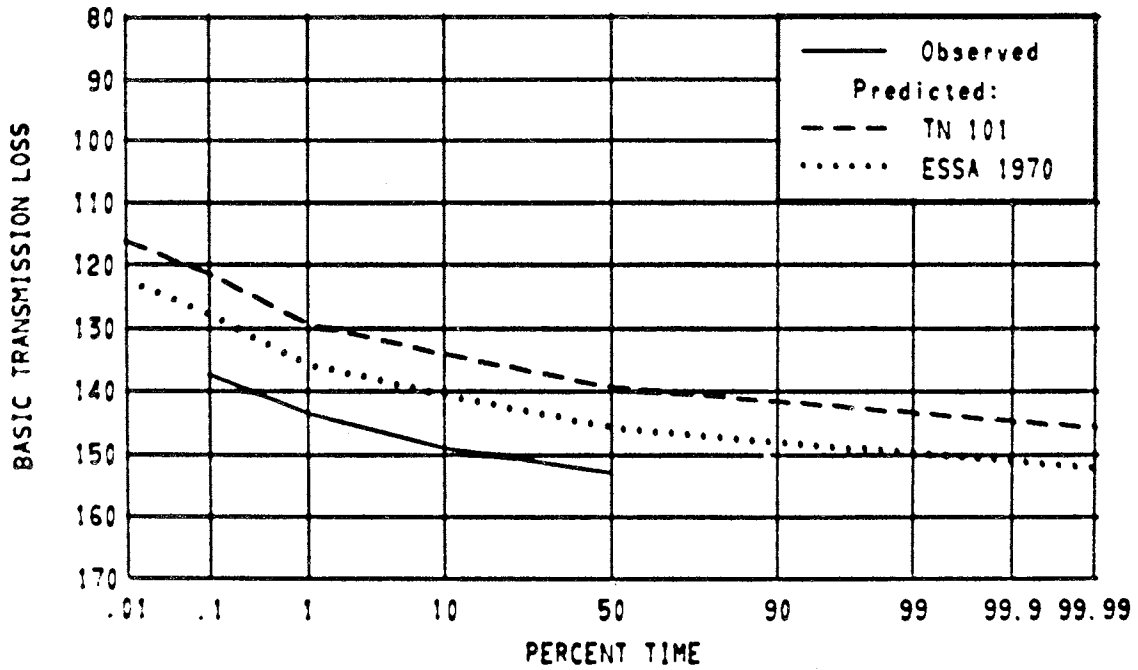
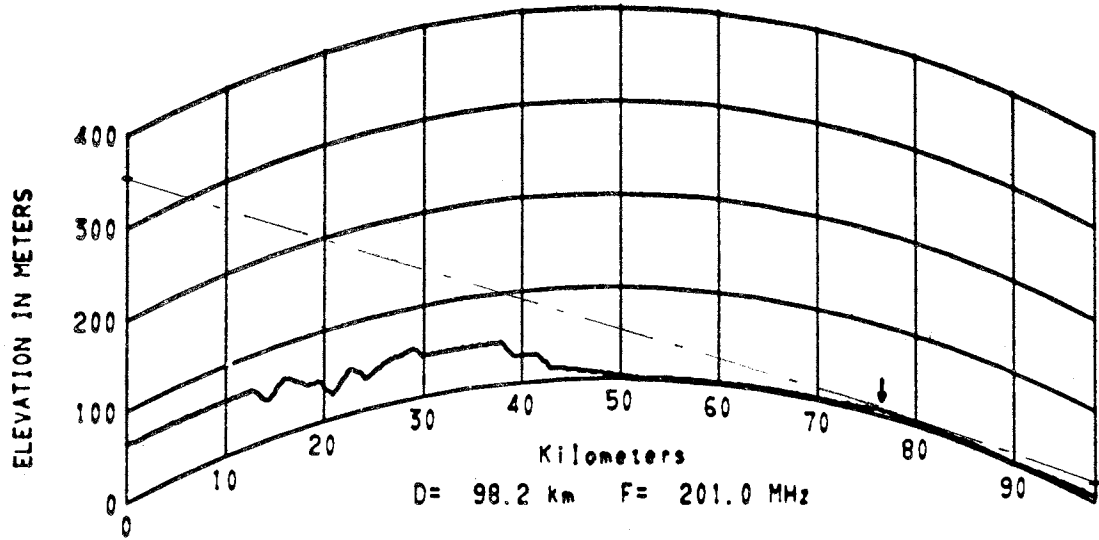


Figure 2.35 Path 2107

PATH 2391 DONNERSBERG W GER - FELDBERG/SCHWARZWALD W GER

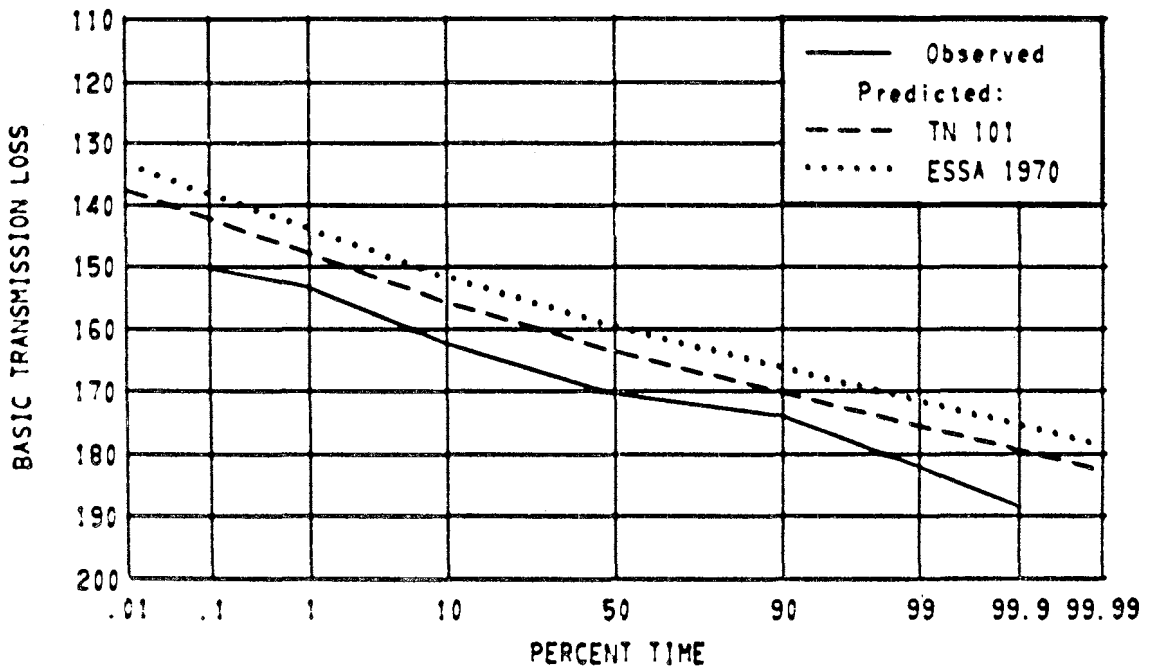
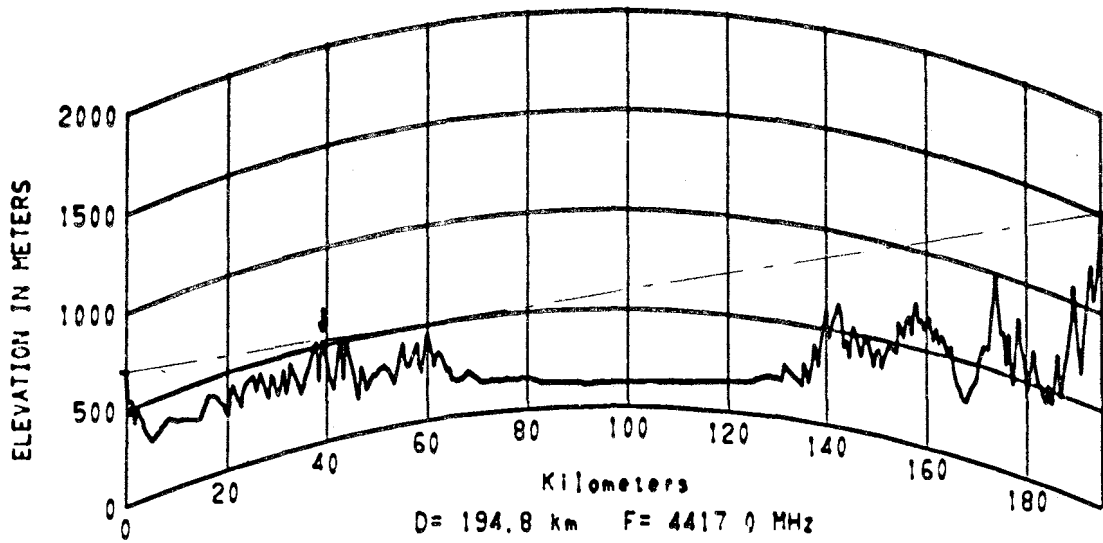


Figure 2.36 Path 2391

PATH 56 YOUNGSTOWN OHIO - HUDSON OHIO

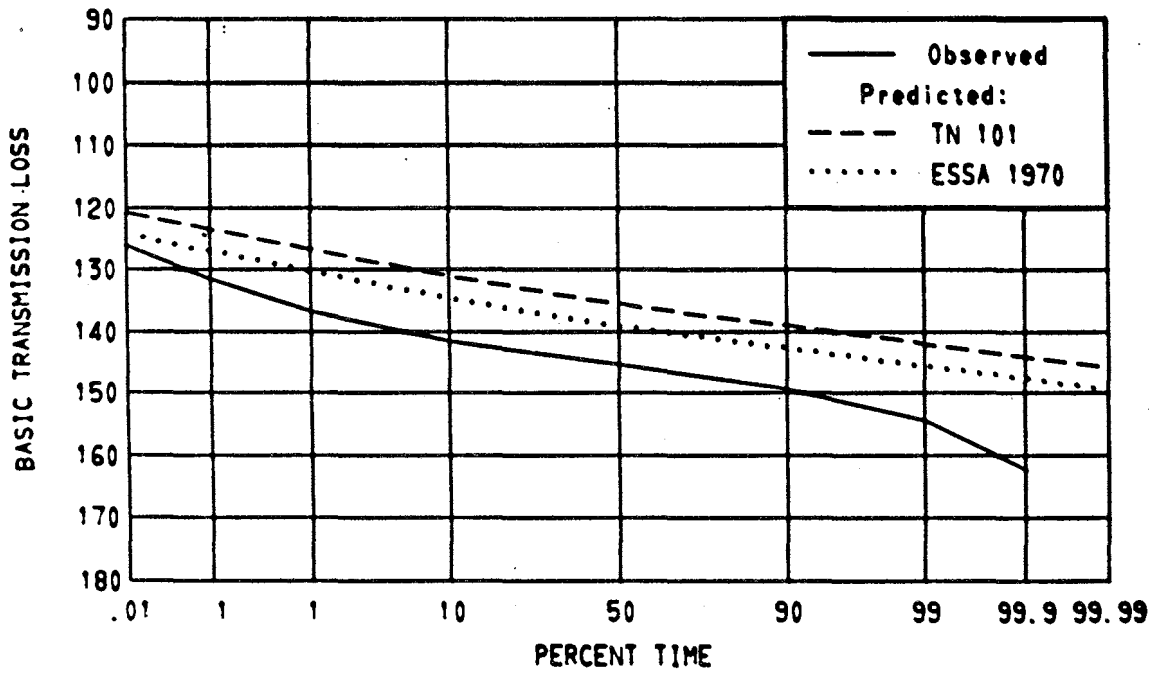
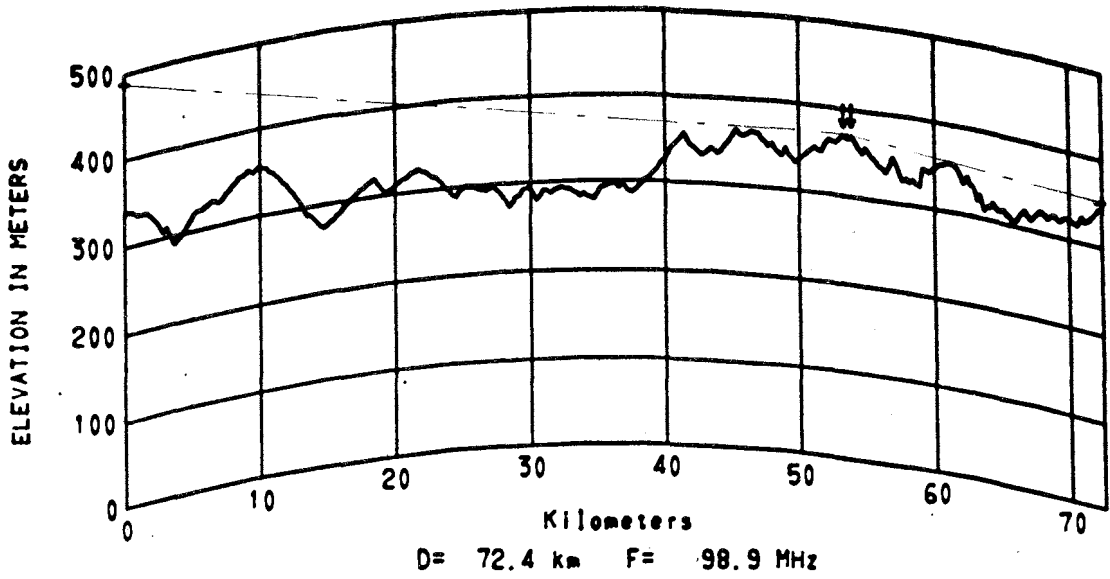


Figure 2.37 Path 56

PATH 39 YOUNGSTOWN OHIO - HUDSON OHIO

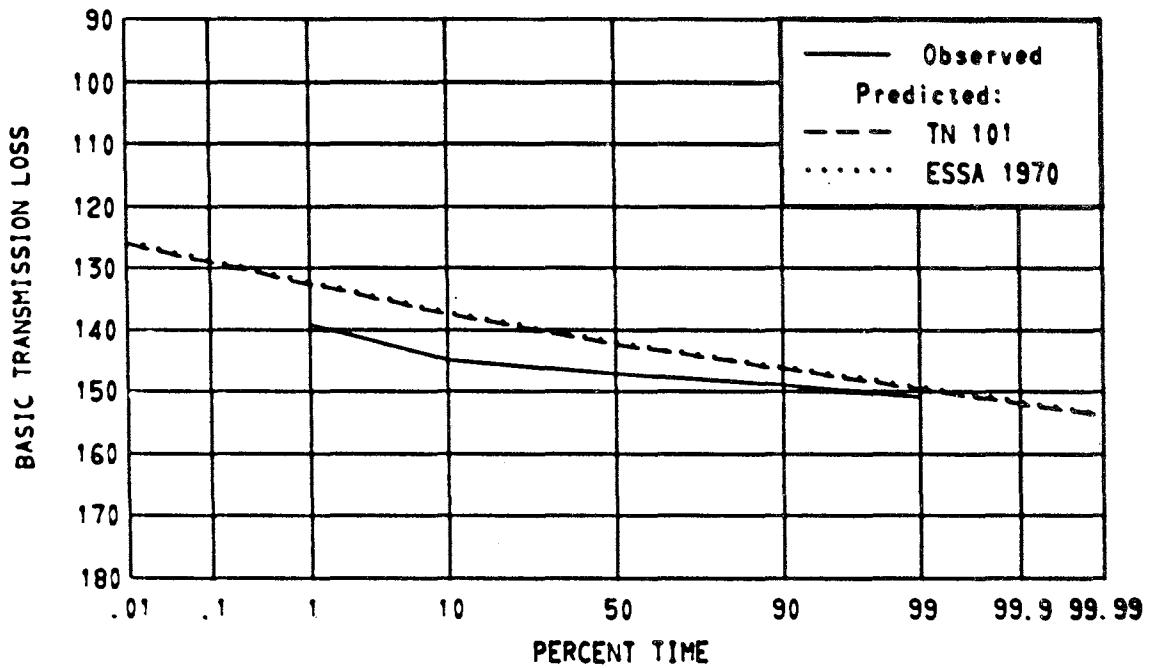
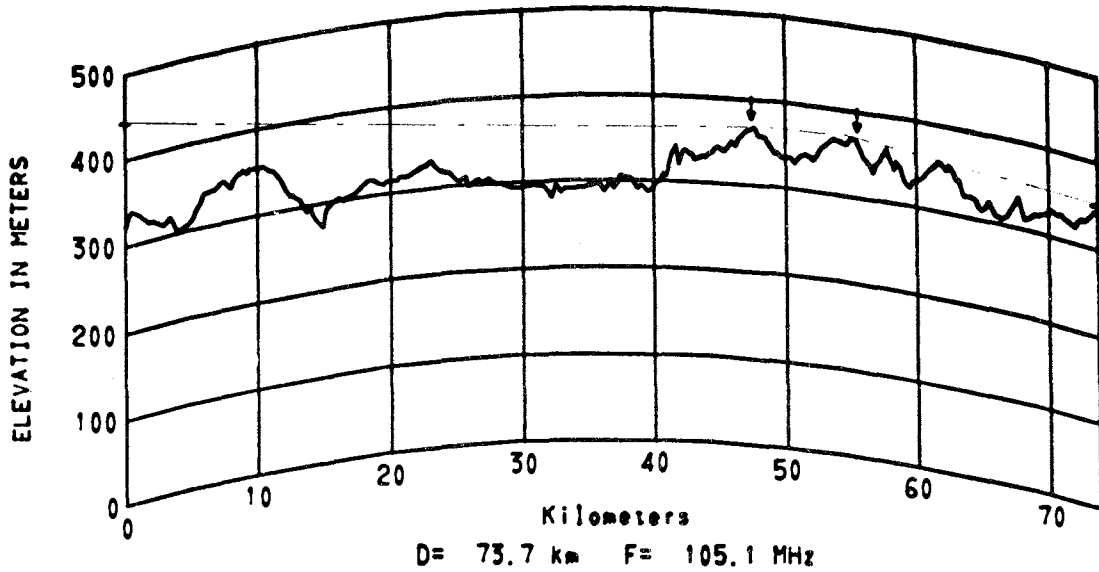


Figure 2.38 Path 39

PATH 390 FT CARSON COLO - KENDRICK COLO

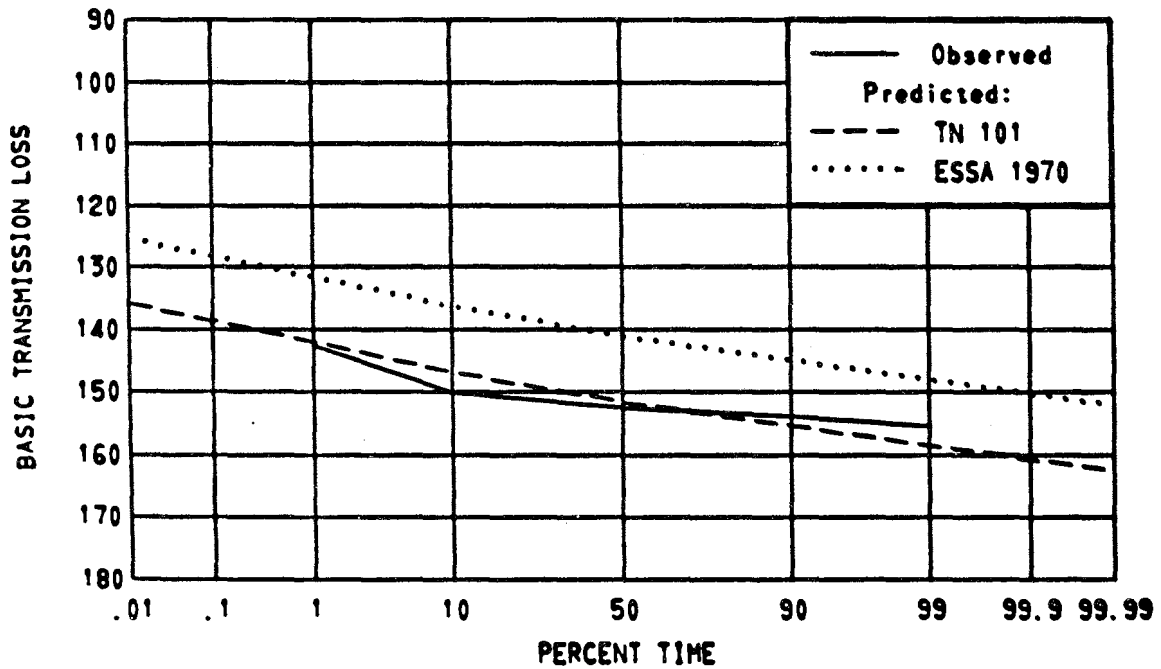
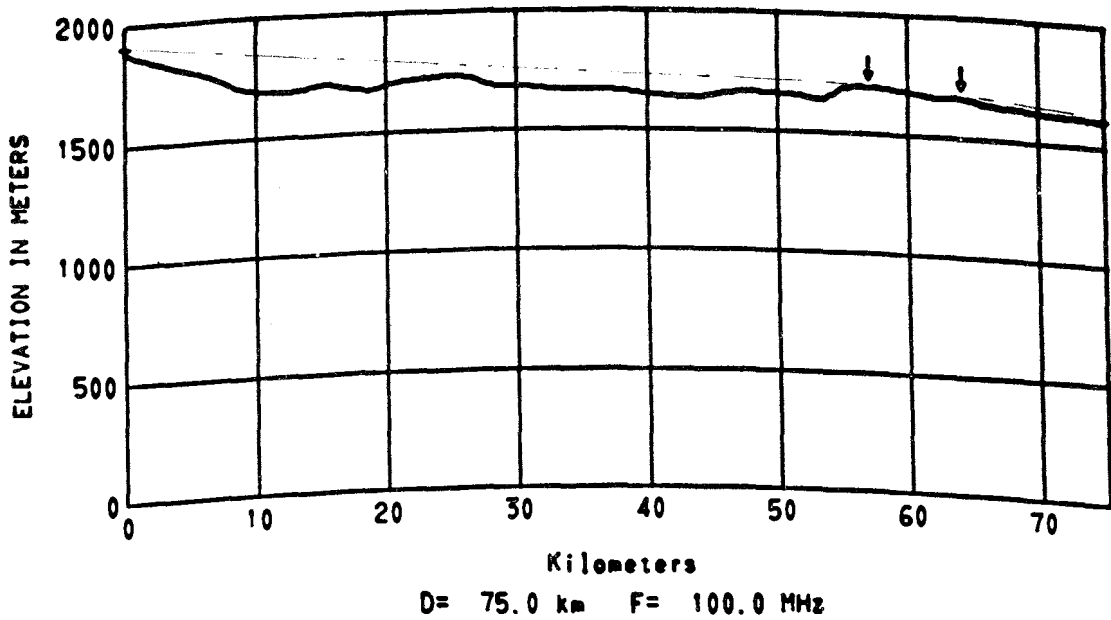
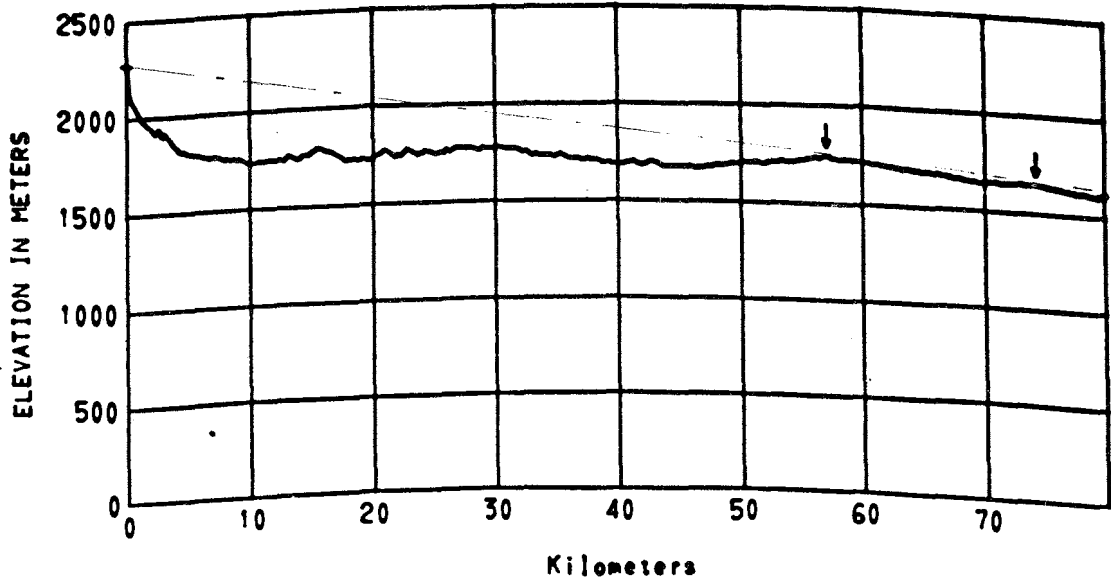


Figure 2.39 Path 390

CHEYENNE MTN B COLO - KENDRICK COLO
 PATHS 330 350 370



PATH 330 D = 79.7 km F = 92.0 MHz

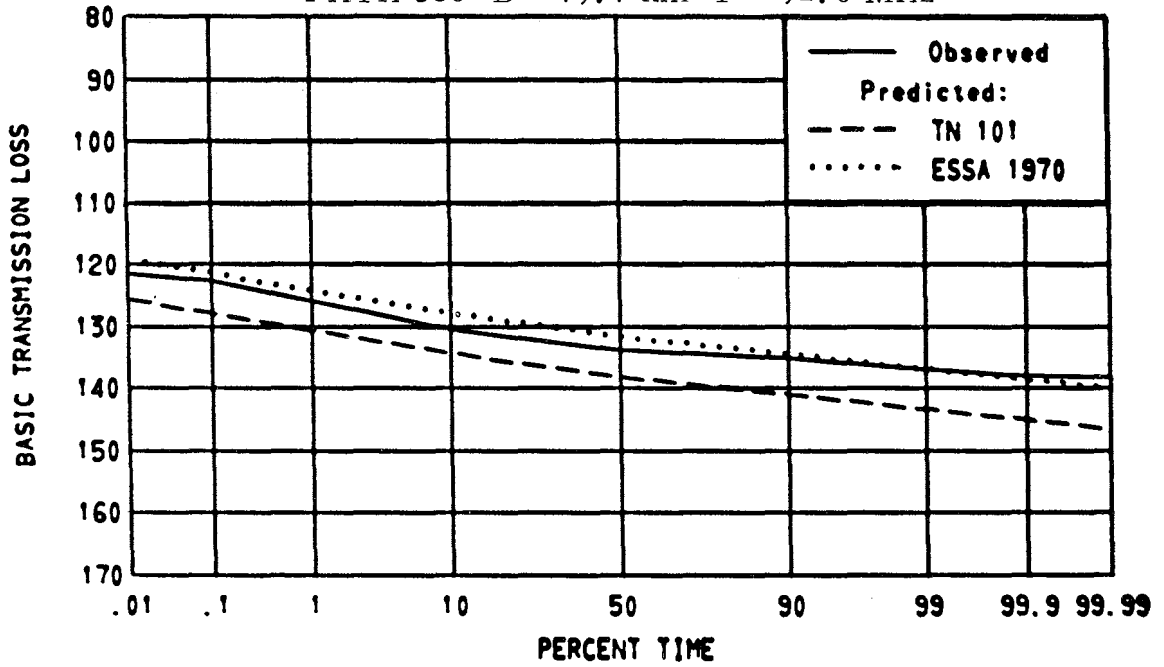
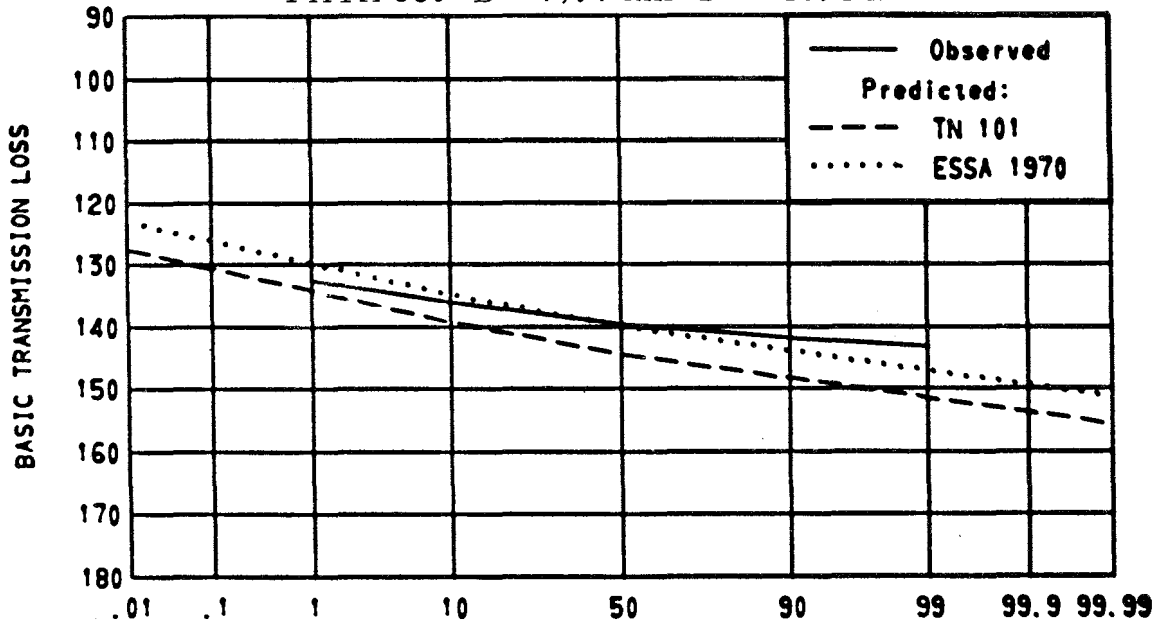


Figure 2.40 Path 330

CHEYENNE MTN B COLO - KENDRICK COLO

PATH 350 D = 79.7 km F = 210.4 MHz



PATH 370 D = 79.7 km F = 236.0 MHz

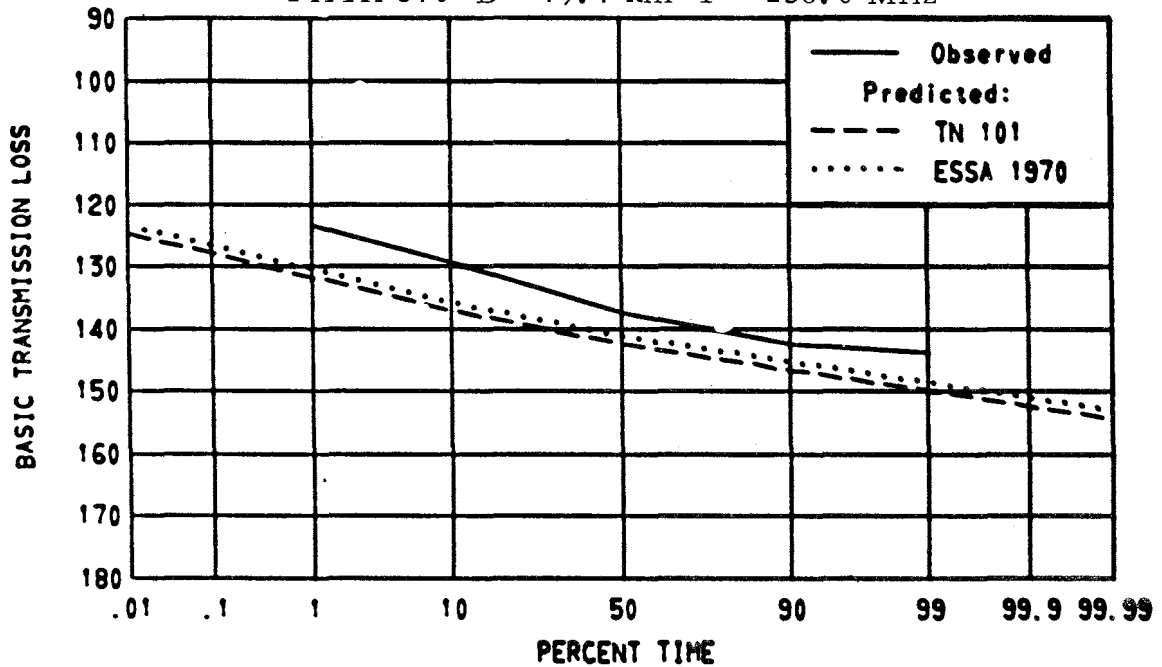


Figure 2.41 Paths 350 370

PATH 97 ATLANTA GA - FORSYTH GA

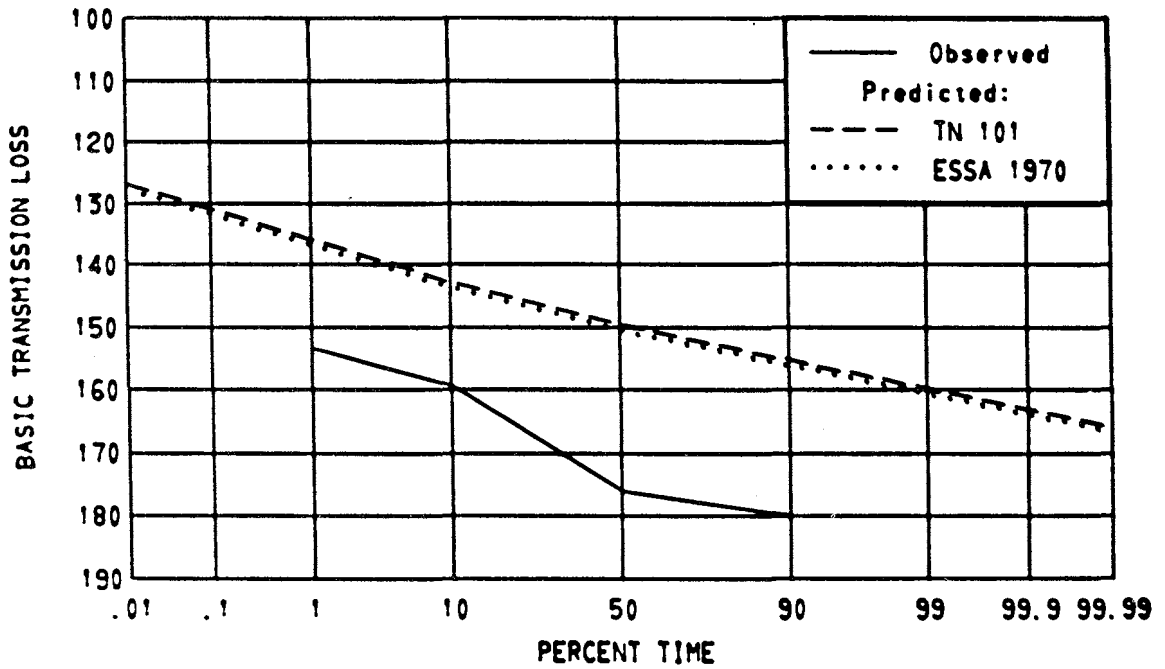
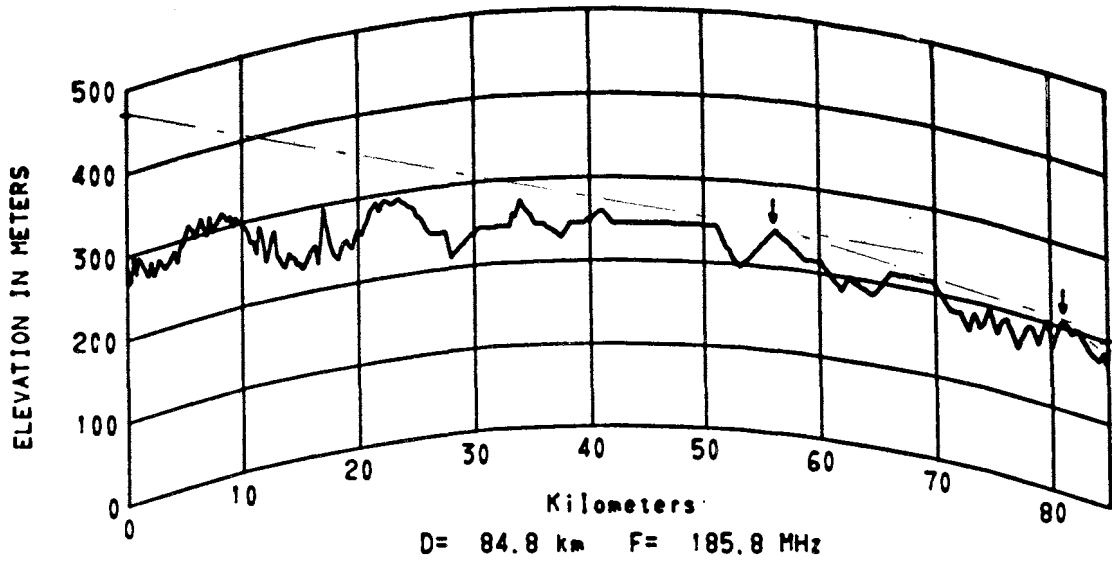


Figure 2.42 Path 97

PATHS 1606 1609 1610 ROCHESTER N Y - ITHACA N Y

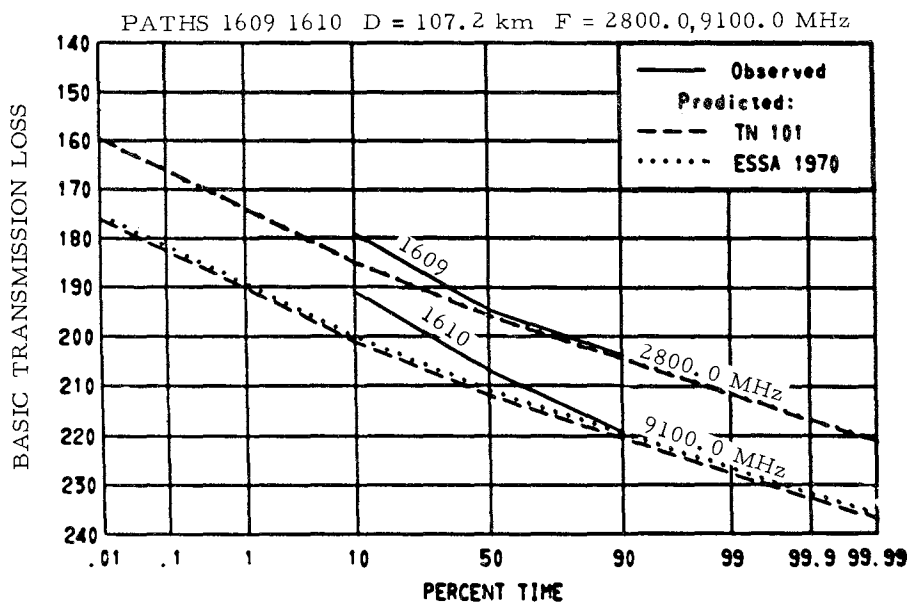
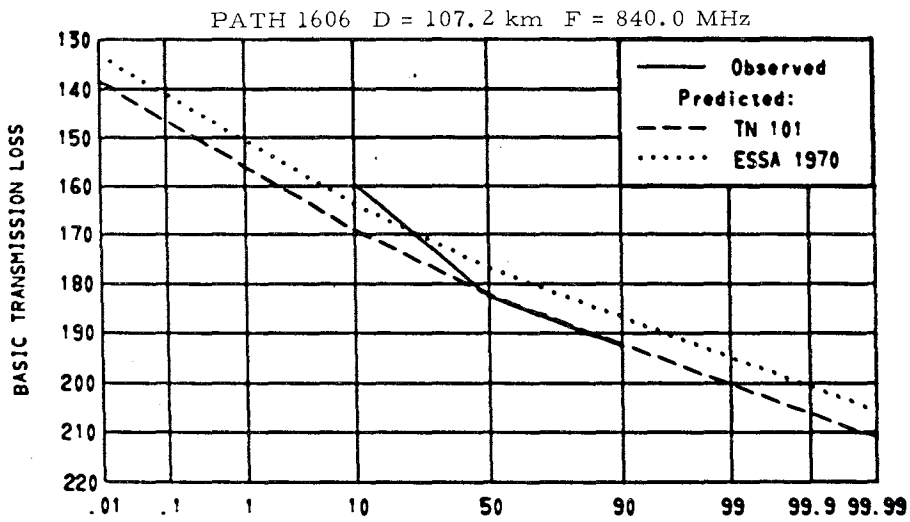
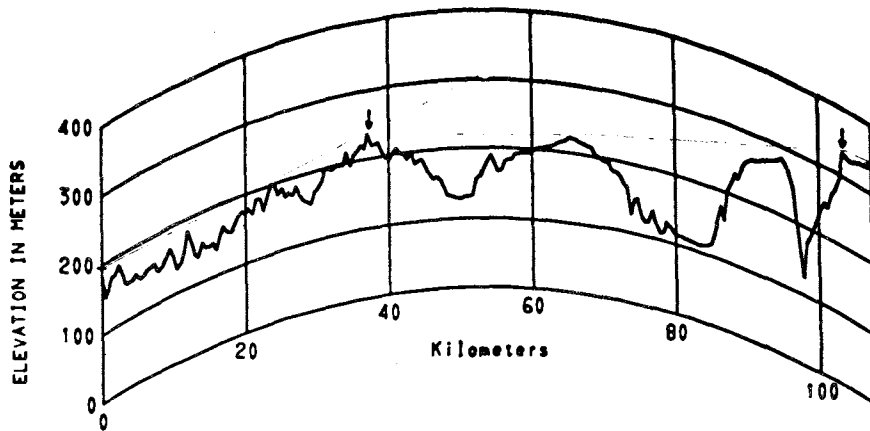


Figure 2.43 Paths 1606 1609 1610

PATH 392 FT CARSON COLO - KARVAL COLO

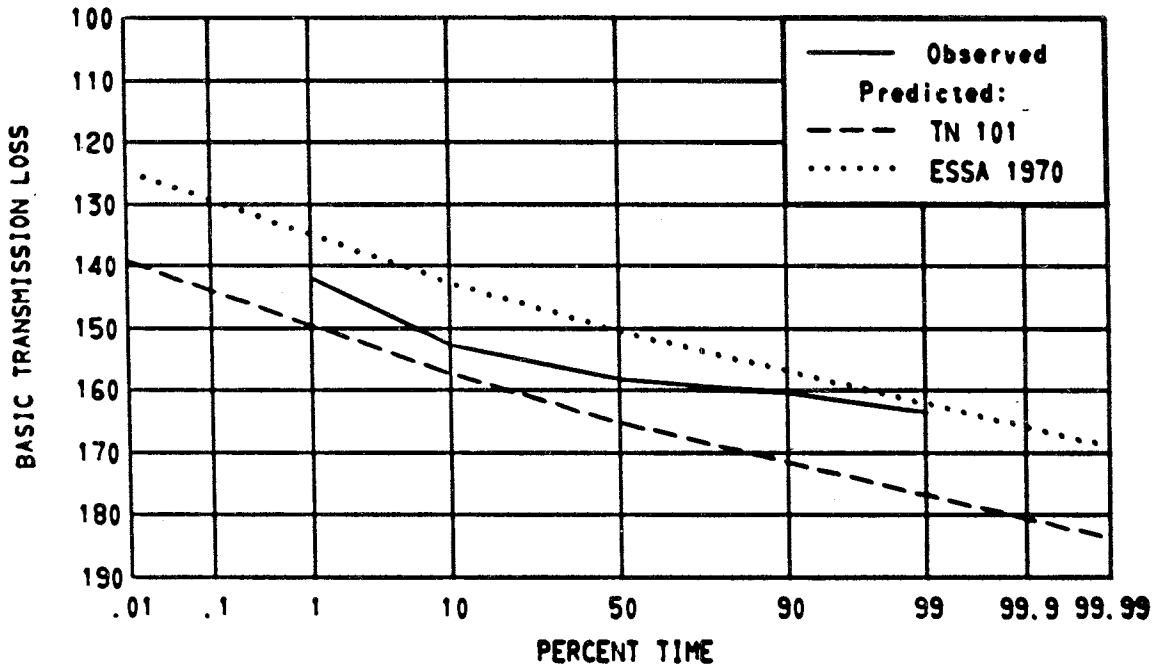
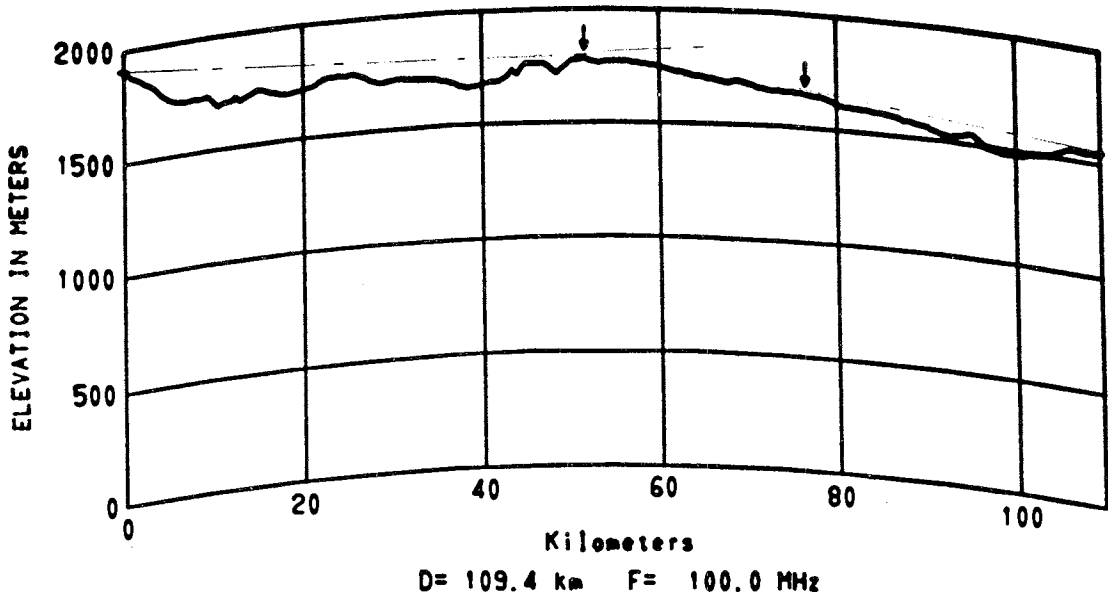


Figure 2.44 Path 392

PATHS 21 TO 23 SAN ANTONIO TEXAS - AUSTIN TEXAS

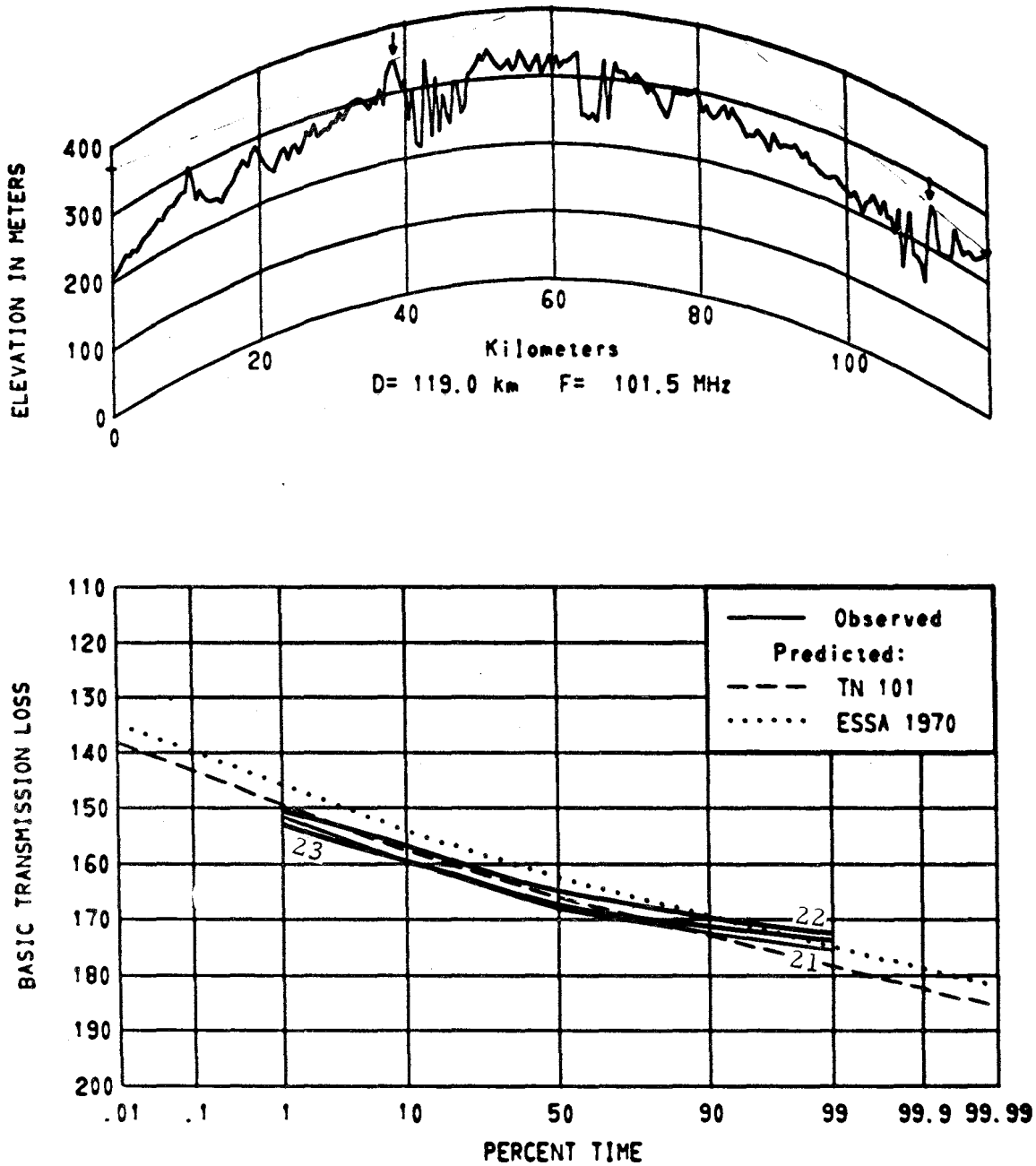


Figure 2.45 Paths 21 to 23

PATH 60 HARTFORD CONN - MILLIS MASS

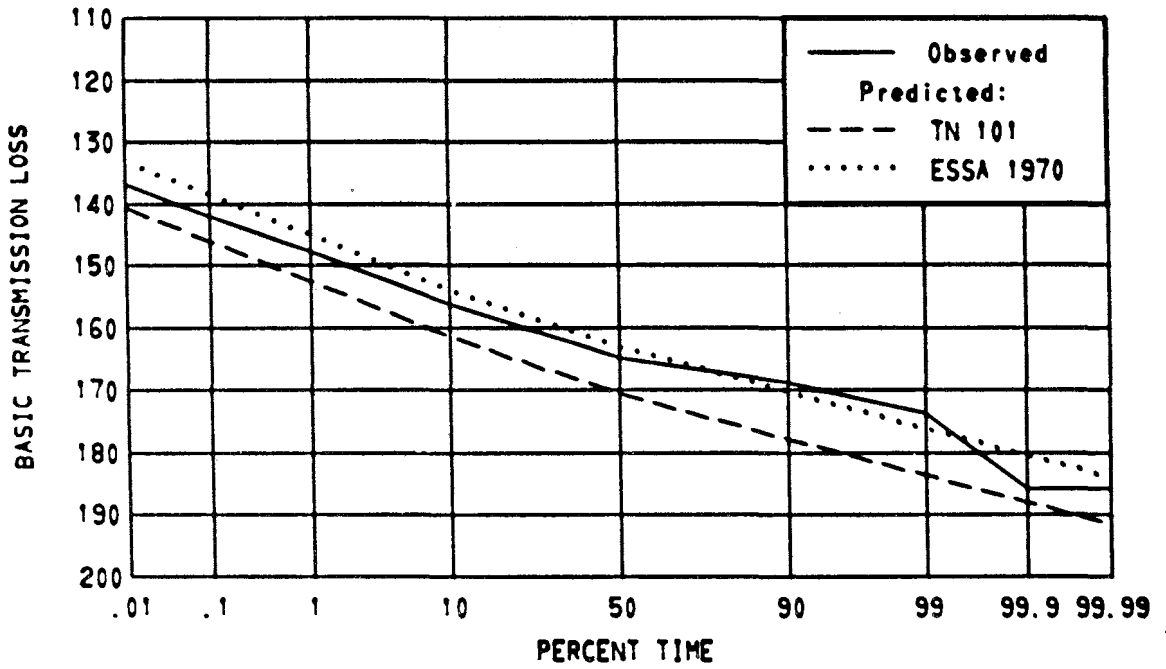
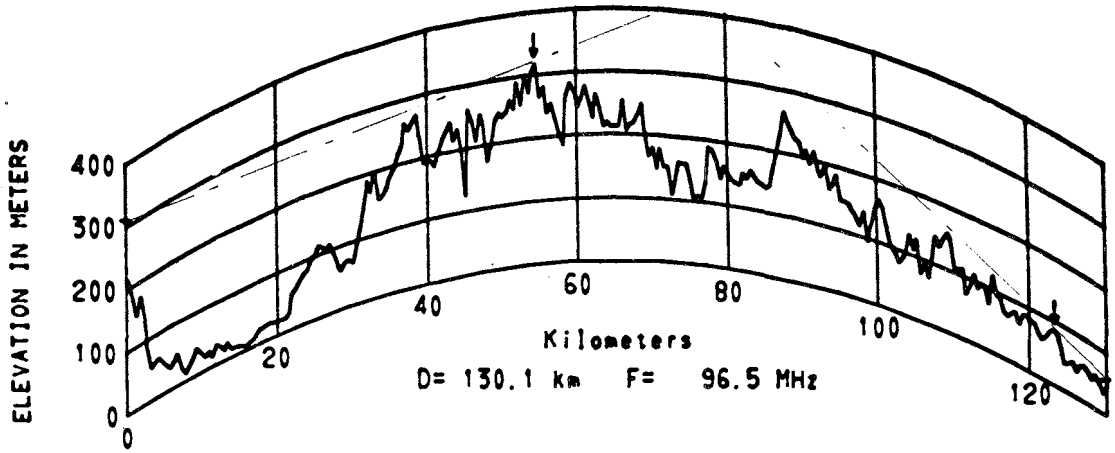


Figure 2.46 Path 60

PATHS 208 228 WILMINGTON DELA - LAUREL MD

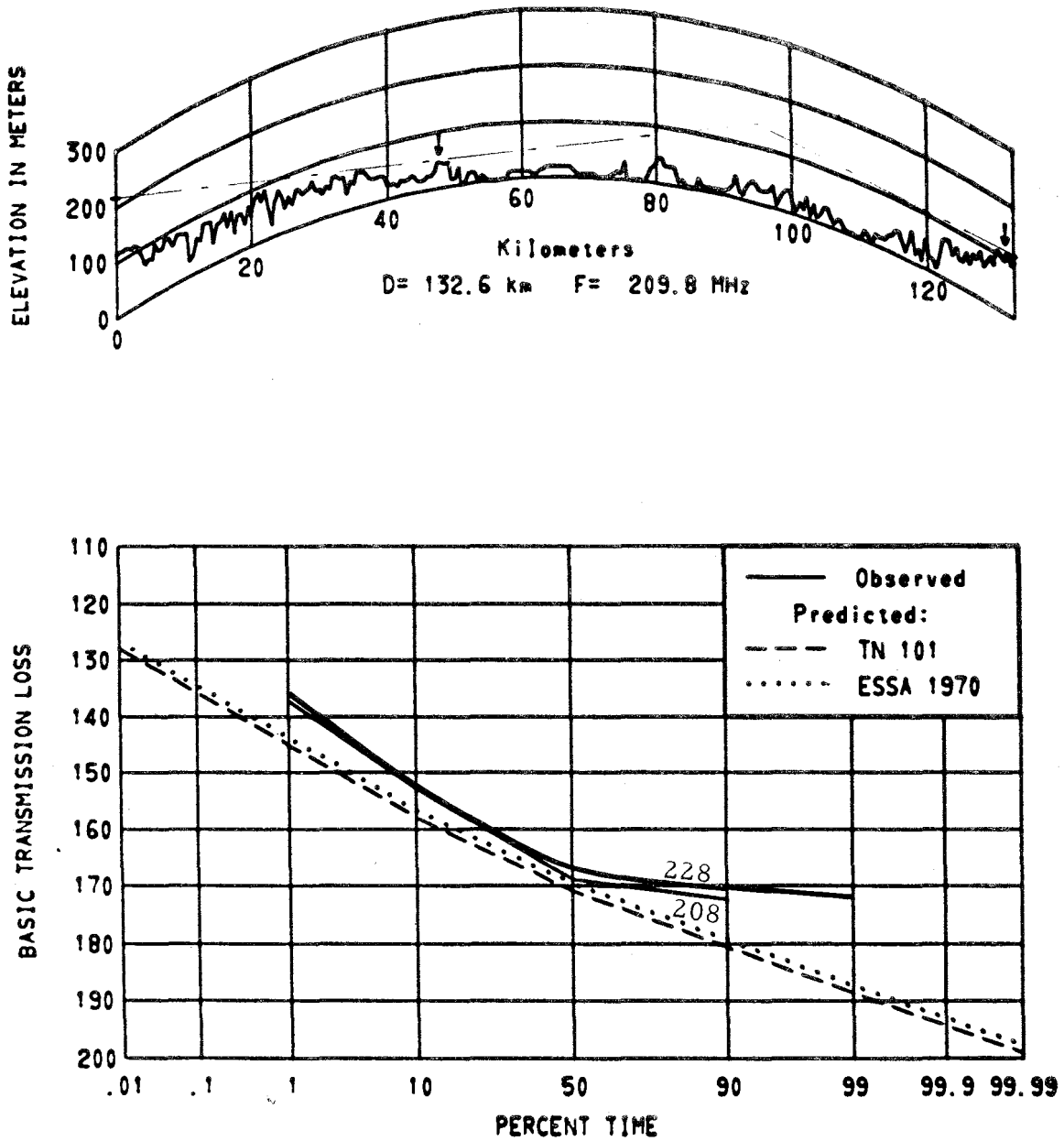


Figure 2.47 Paths 208 228

PATH 394 FT CARSON COLO - HASWELL COLO

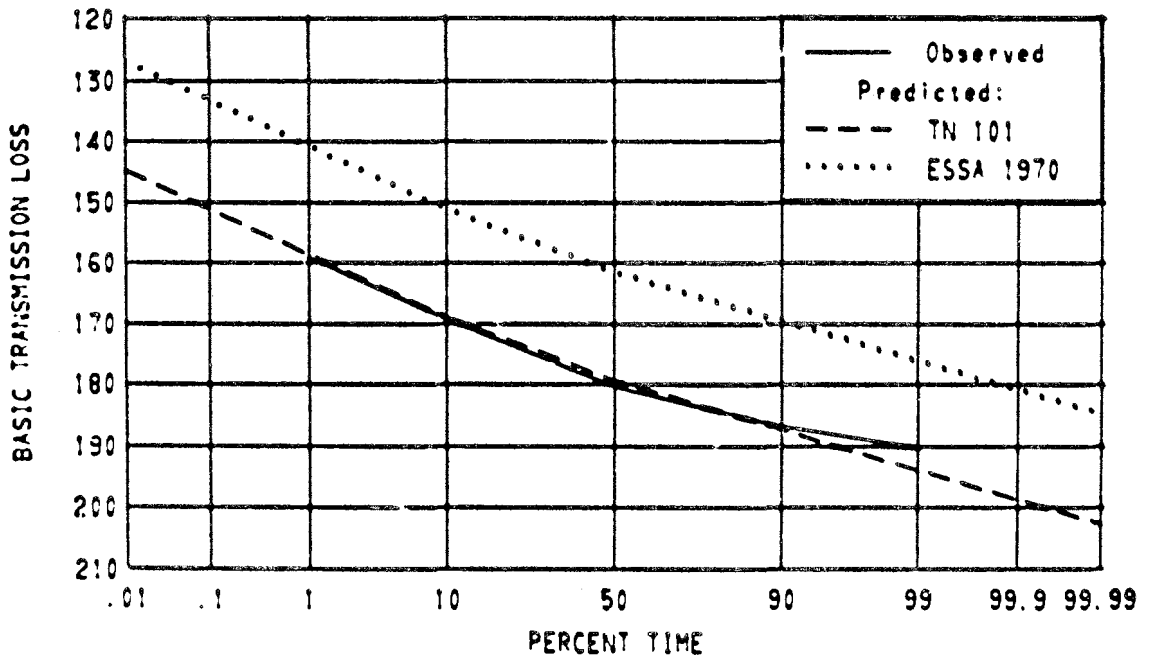
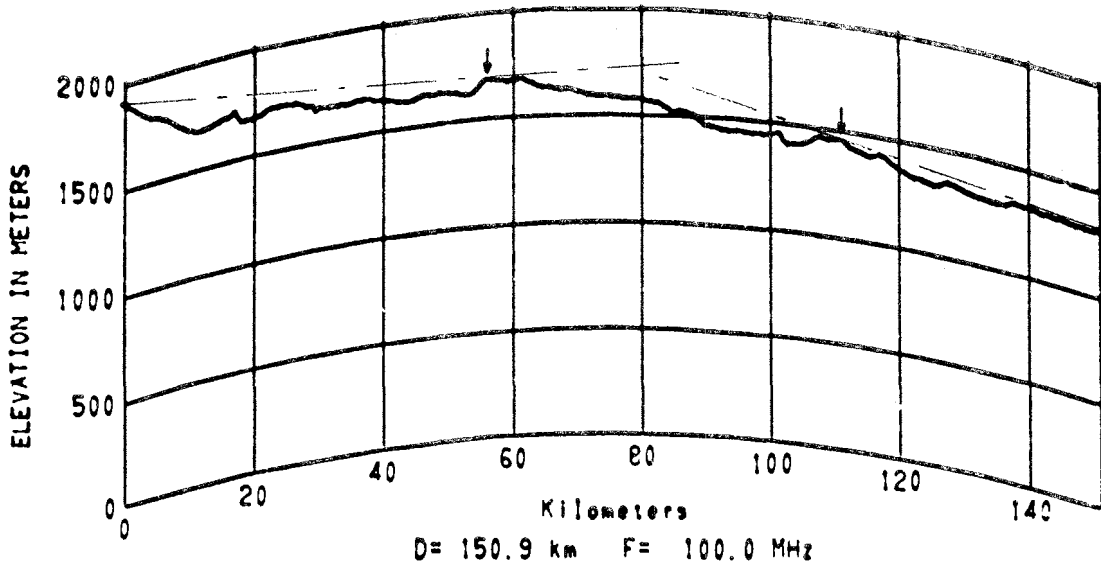


Figure 2.48 Path 394

PATH 34 READING PA - LAUREL MD

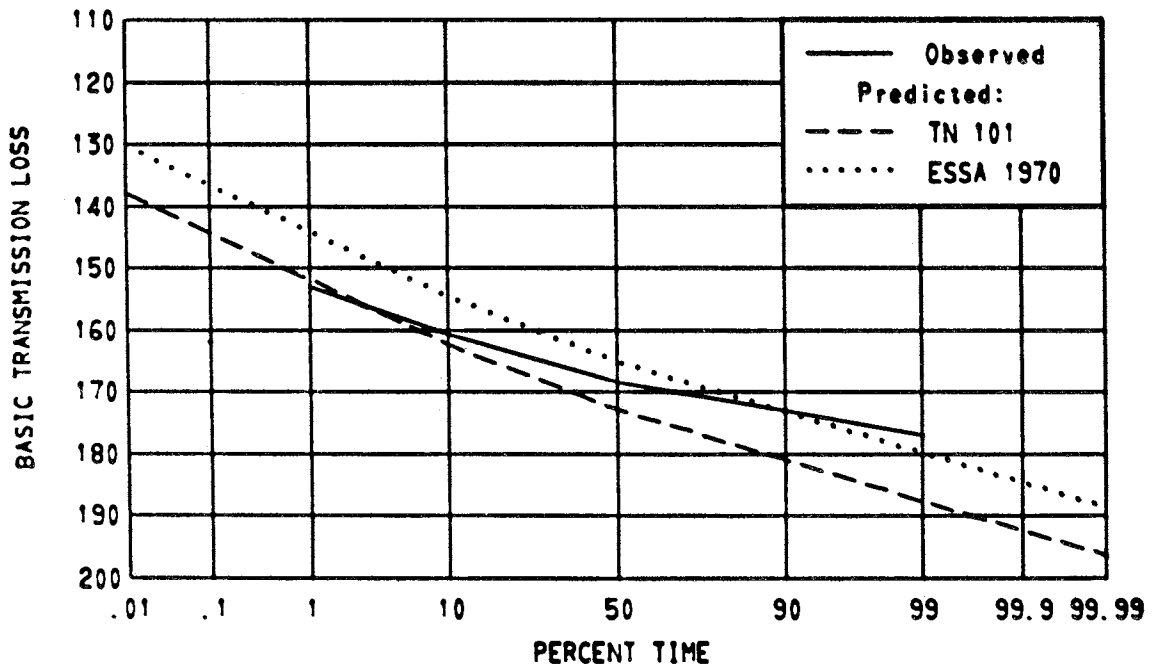
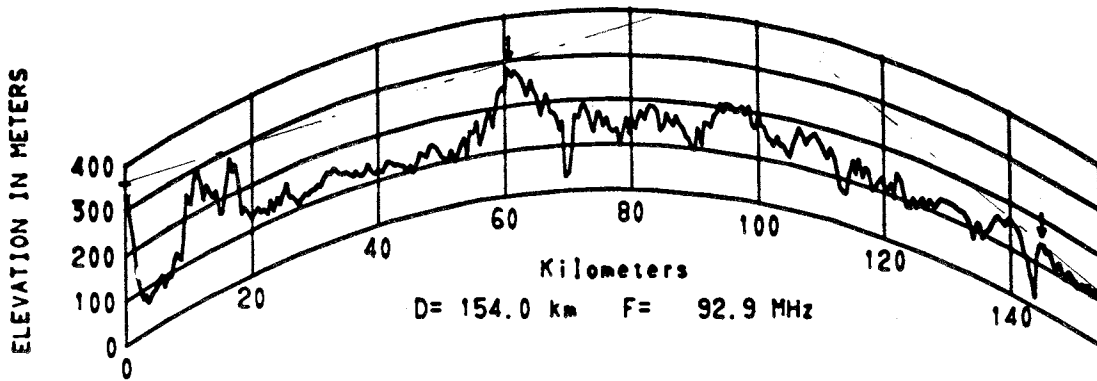


Figure 2.49 Path 34

PATHS 334 354 374 CHEYENNE MTN B COLO - HASWELL COLO

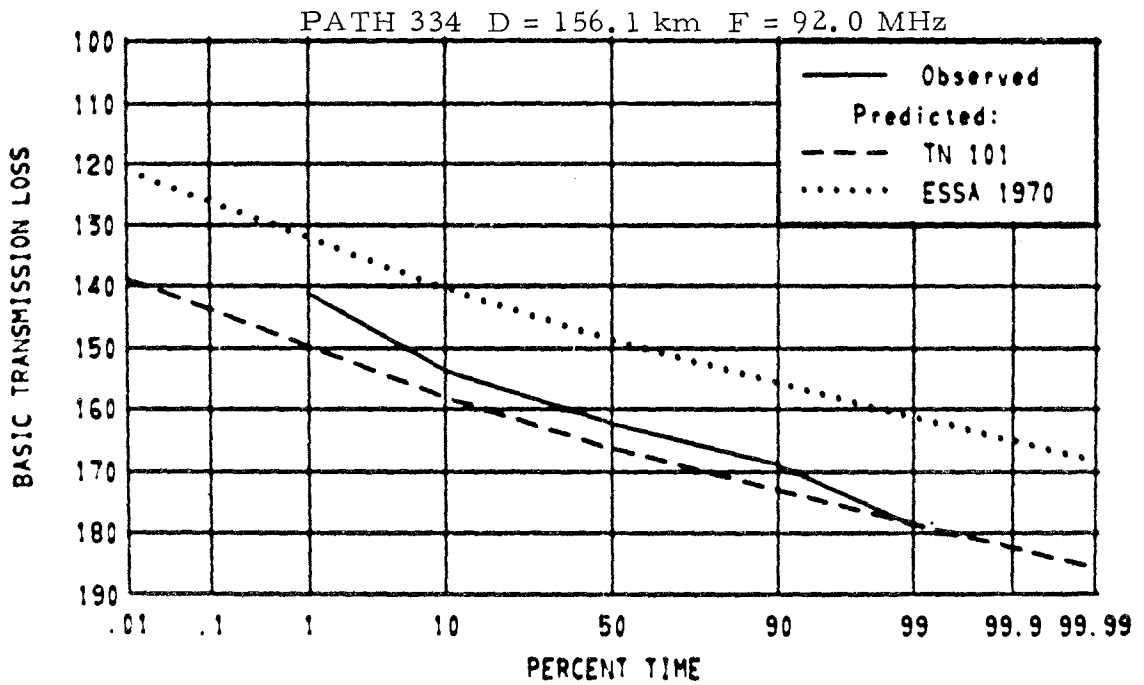
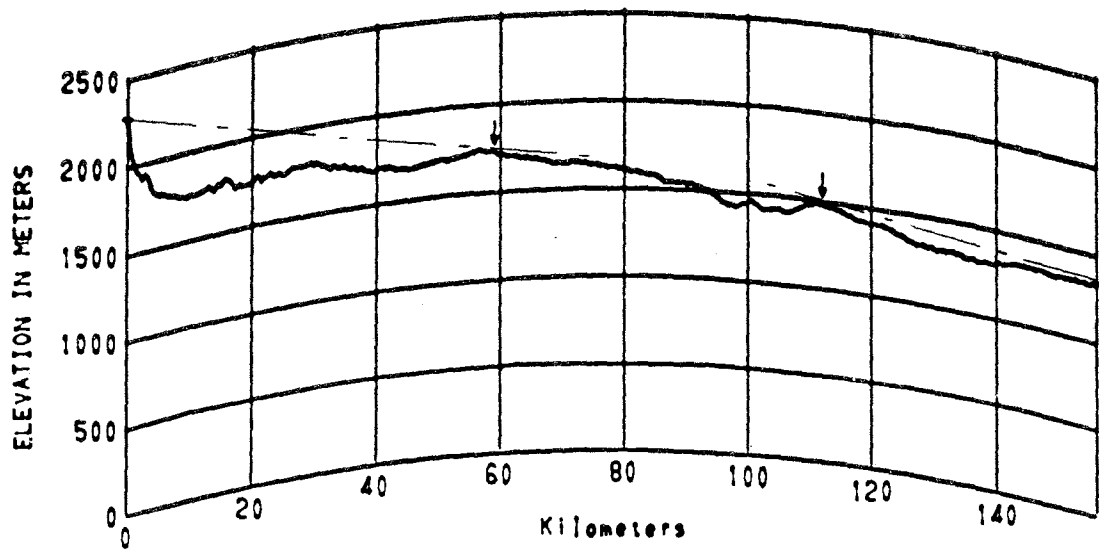
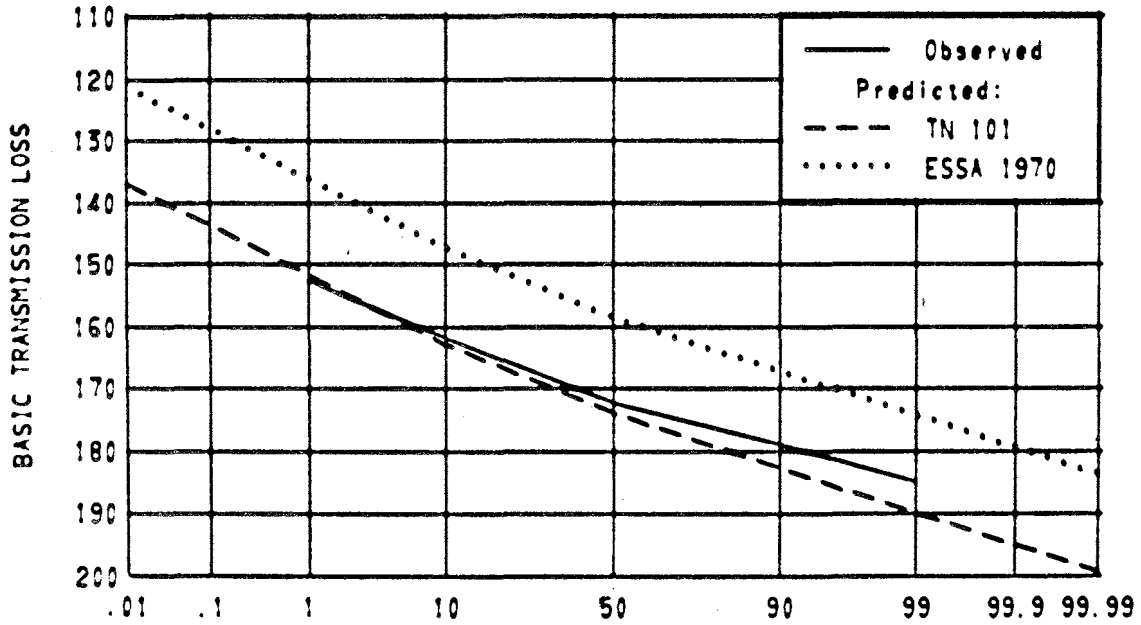


Figure 2.50 Path 334

CHEYENNE MTN B. COLO - HASWELL COLO

PATH 354 D = 156.1 km F = 210.4 MHz



PATH 374 D = 156.1 km F = 236.0 MHz

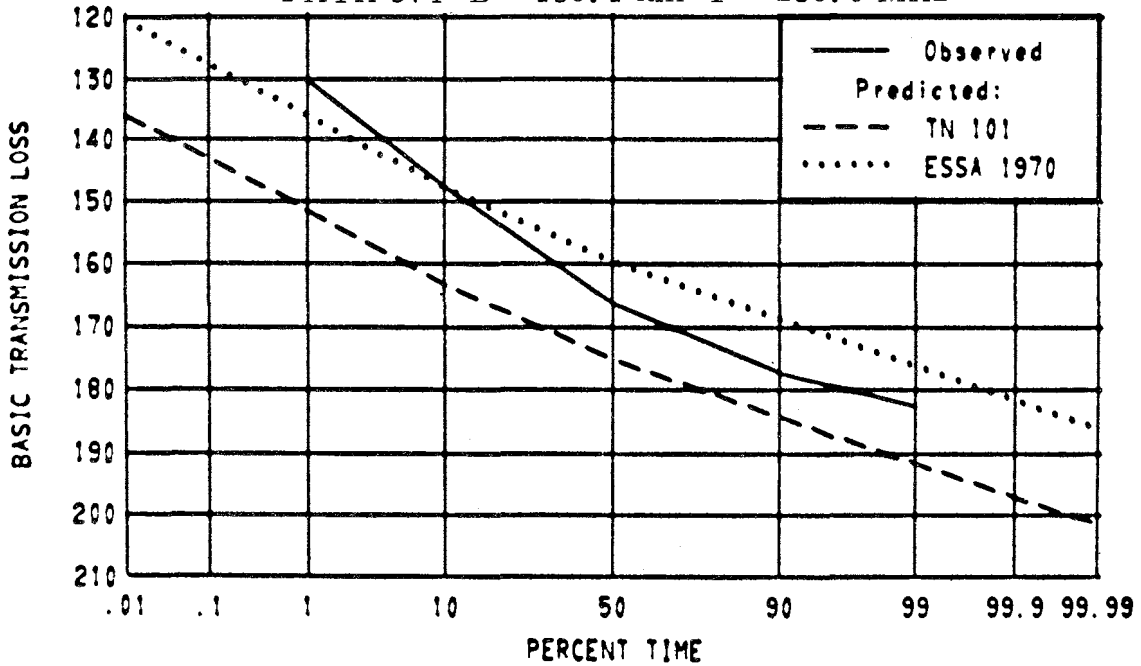


Figure 2.51 Paths 354 374

PATHS 262 302 CHEYENNE MTN S COLO - SHERIDAN LAKE COLO

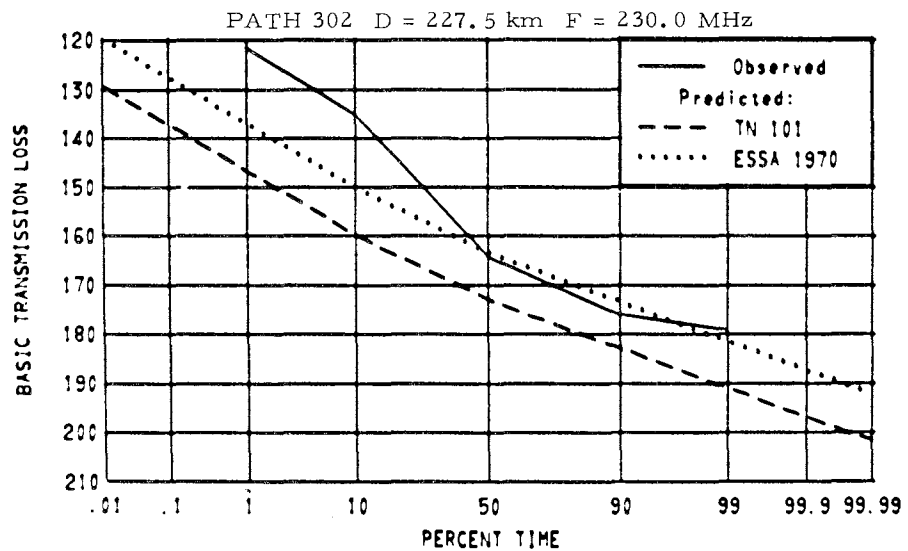
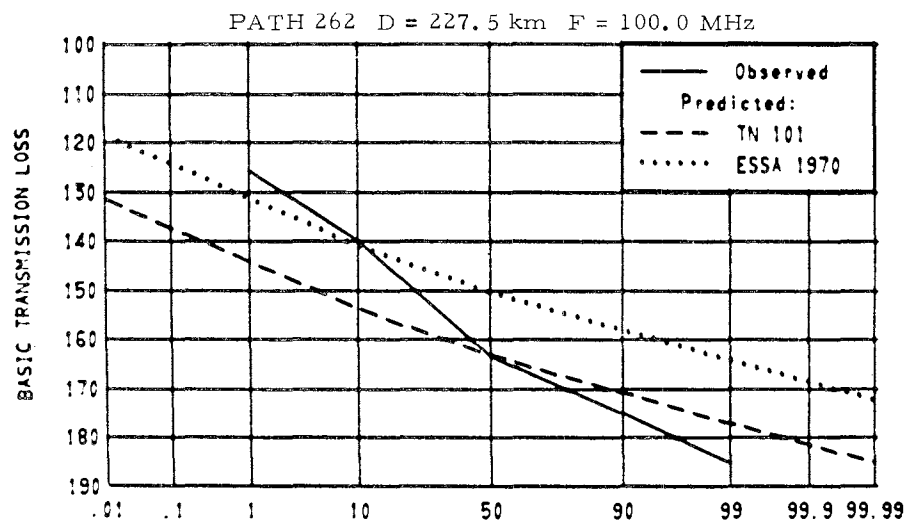
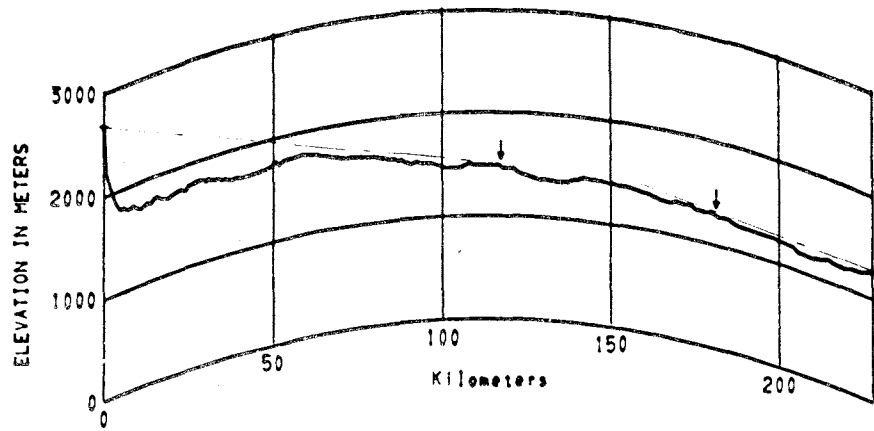


Figure 2.52 Paths 262 302

PATH 425 PIKES PEAK COLO - SHERIDAN LAKE COLO

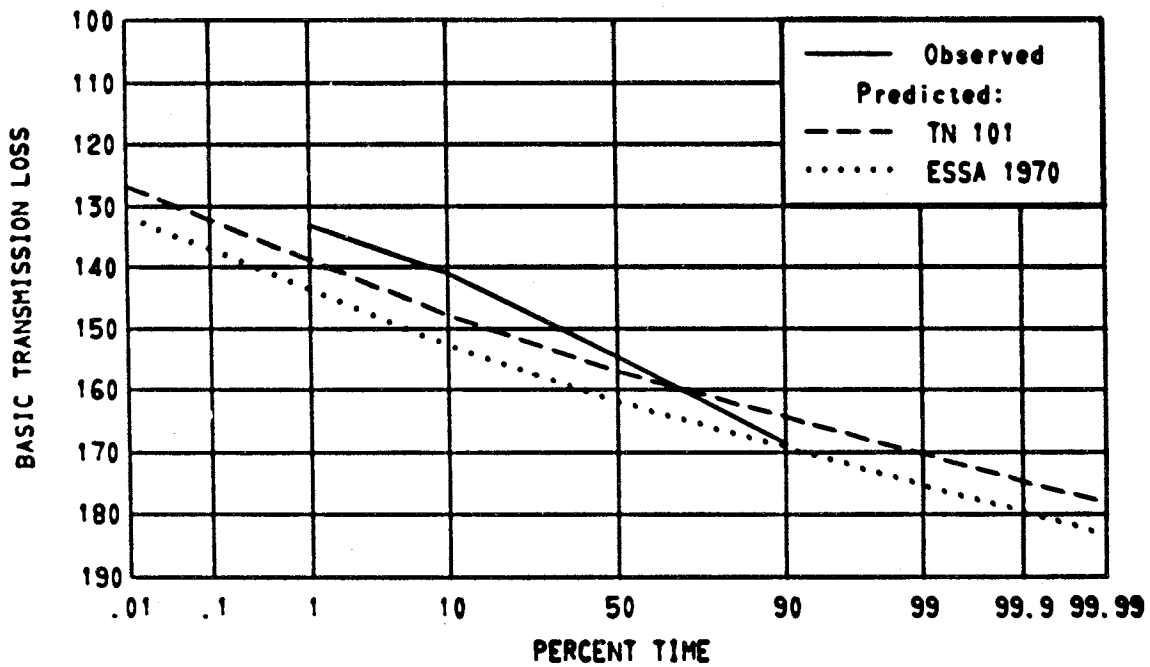
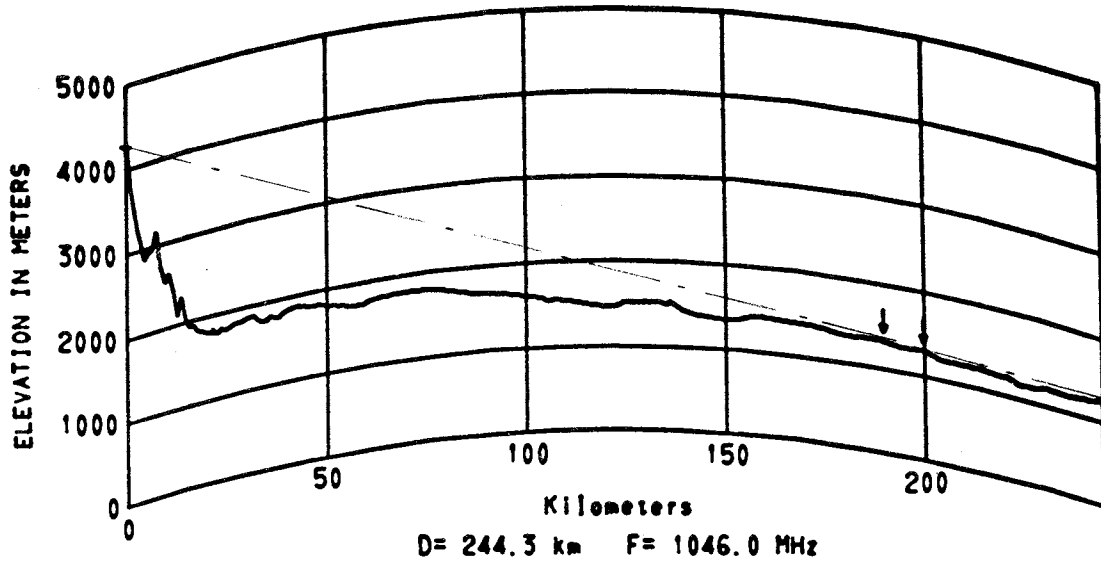


Figure 2.53 Path 425

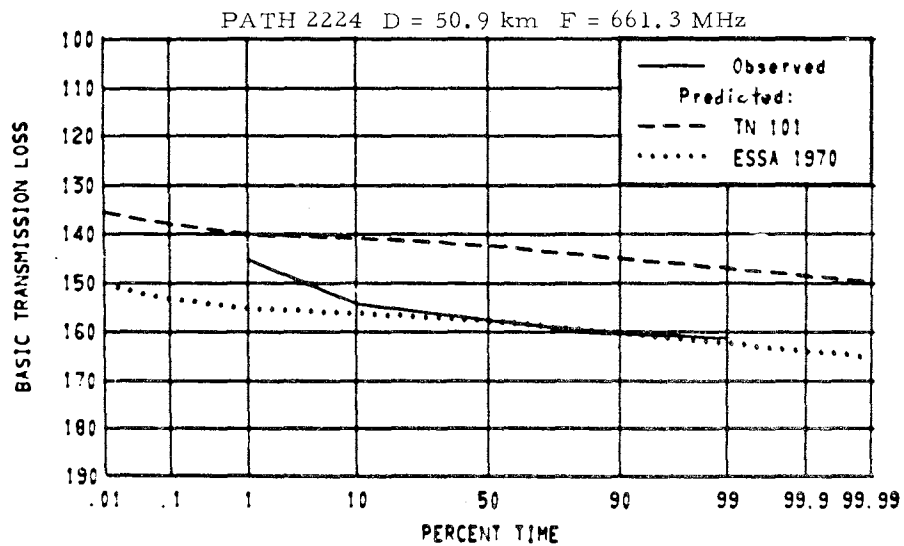
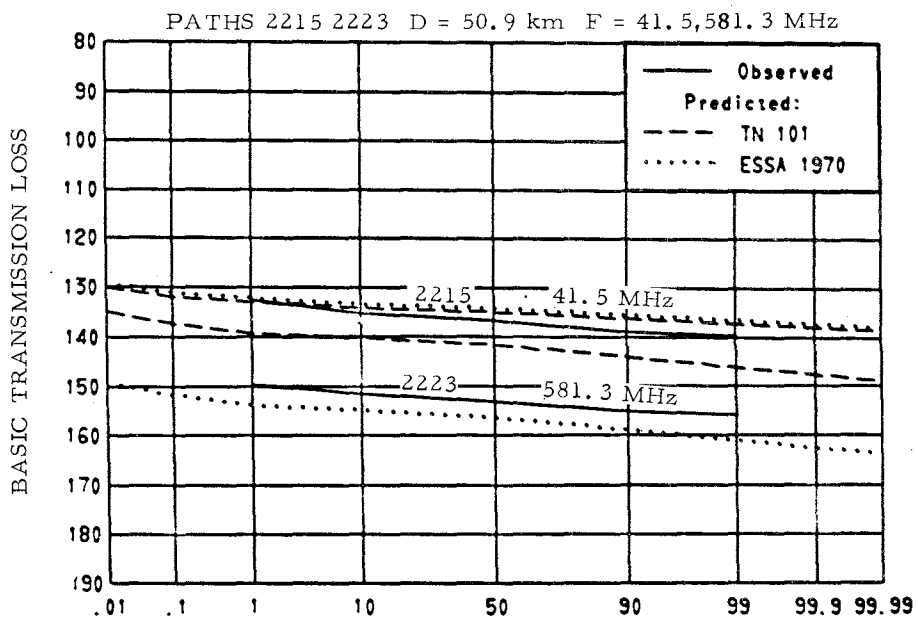
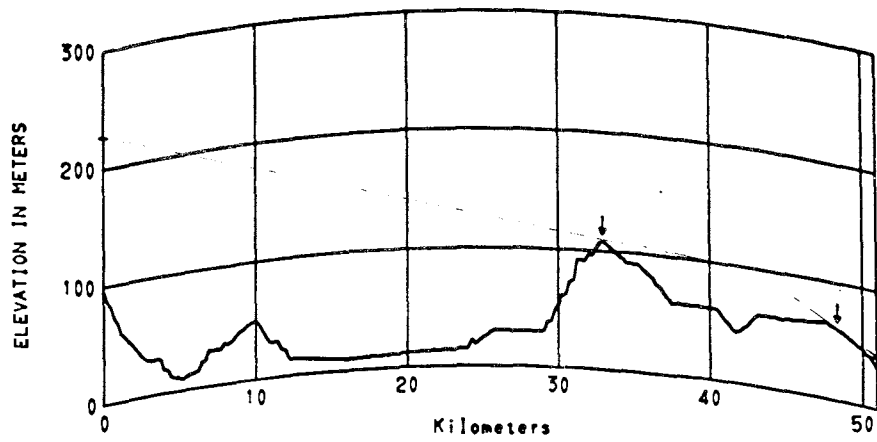


Figure 2.54 Paths 2215 2223 2224

PATH 1980 CRYSTAL PALACE ENG - MANNINGTREE ENG

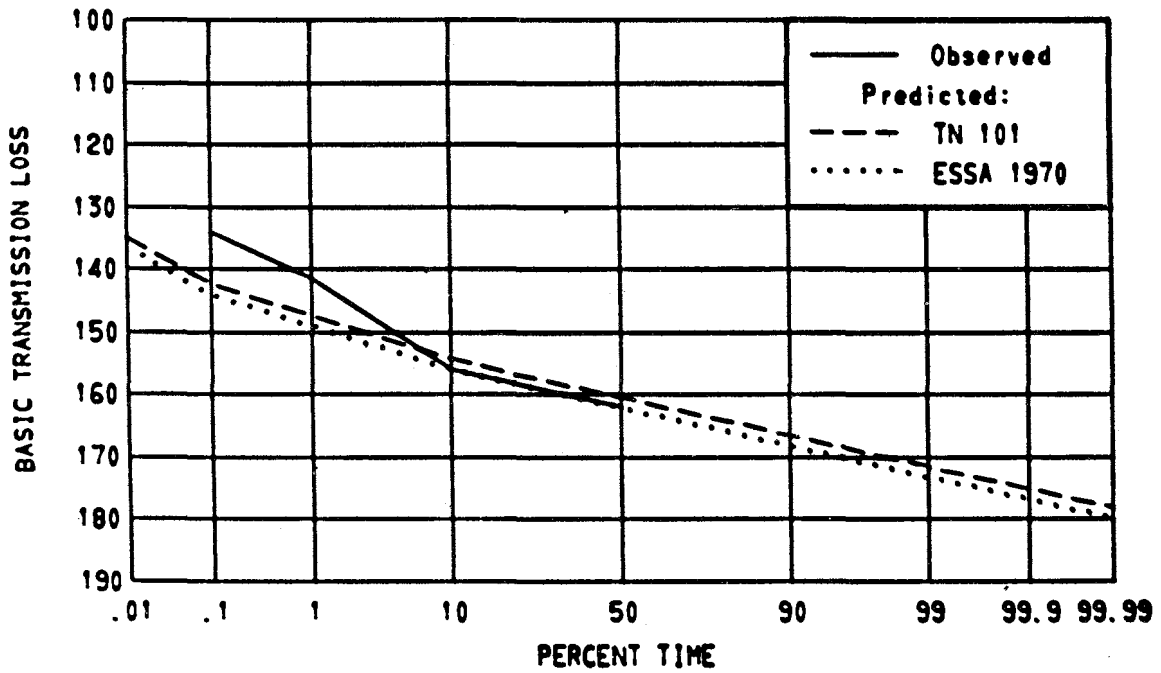
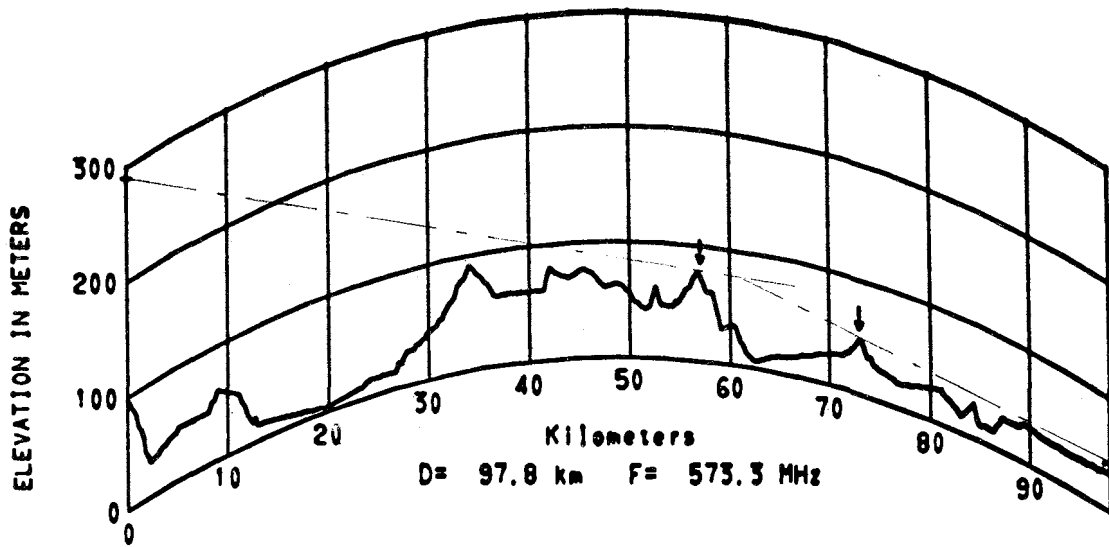


Figure 2.55 Path 1980

PATHS 2170 2171 SANDAY ORKNEY IS - SCOUSBURGH SHETLAND IS

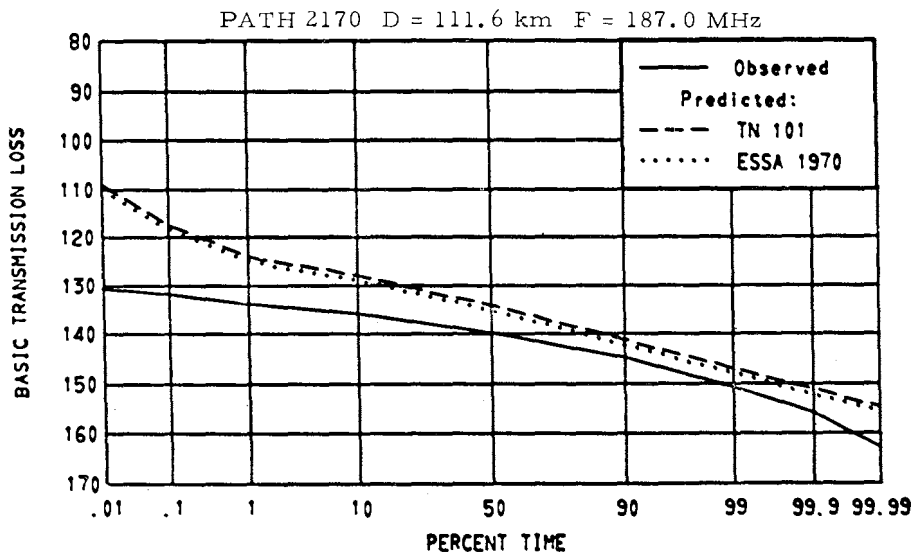
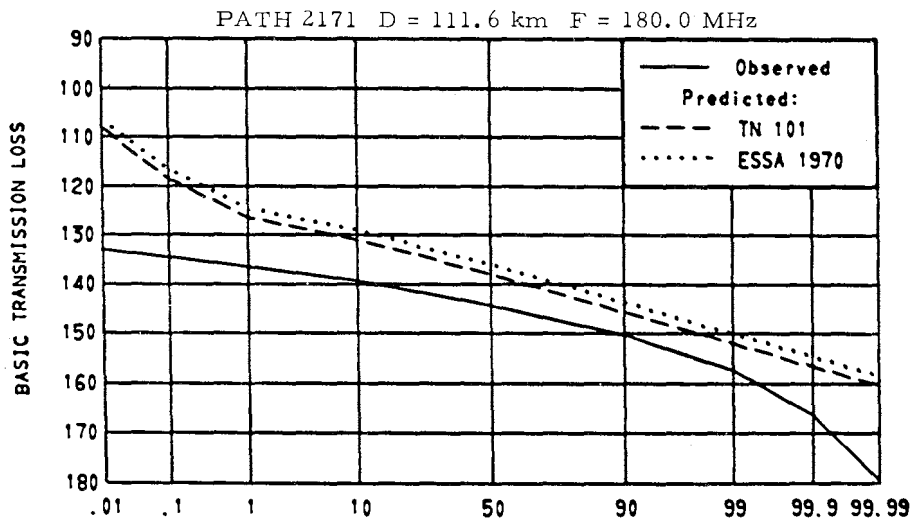
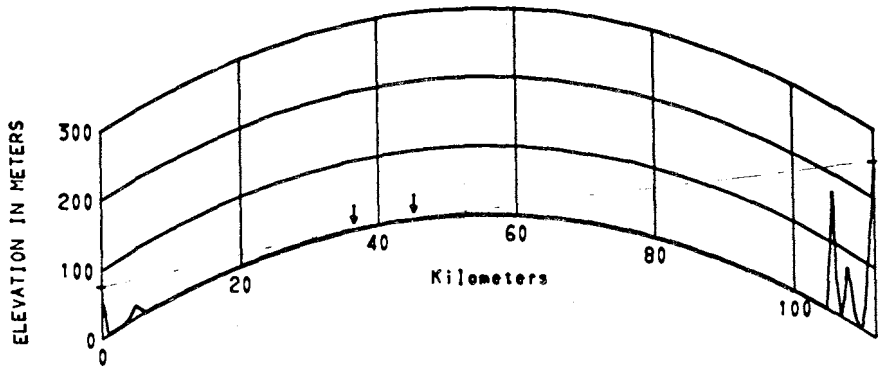


Figure 2.56 Paths 2170 2171

PATH 1997 CRYSTAL PALACE ENG - SHRIVENHAM ENG

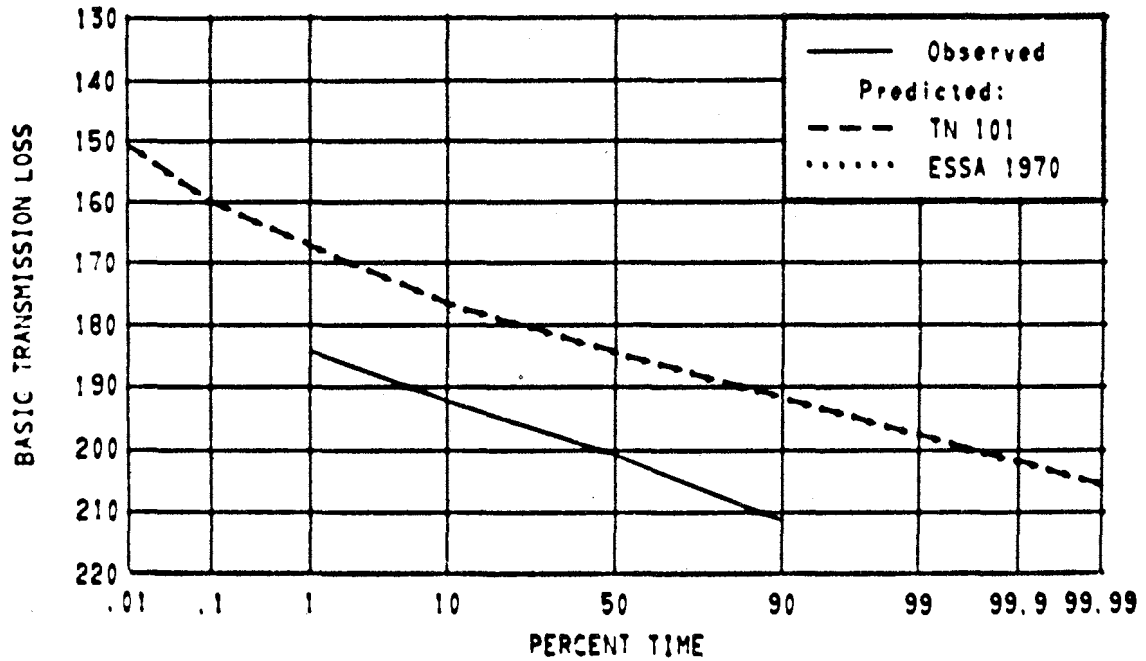
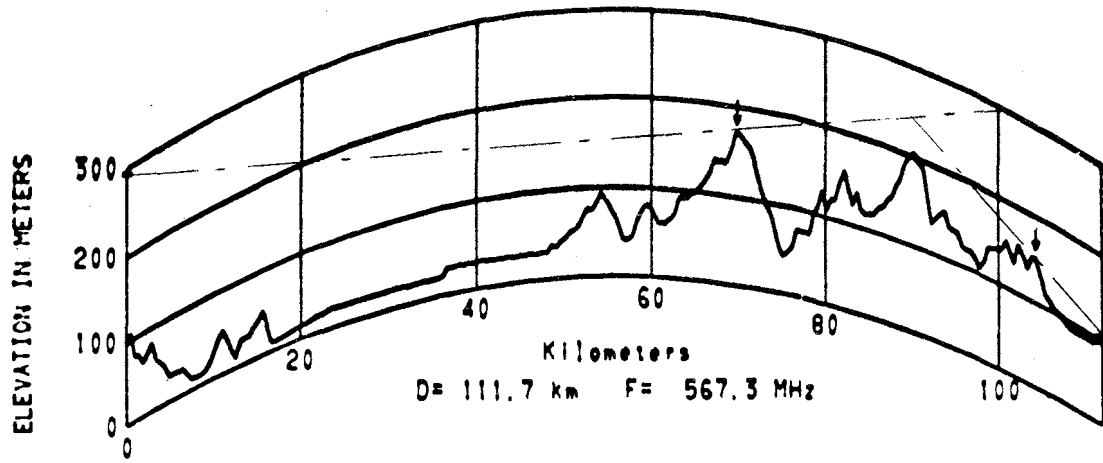


Figure 2.57 Path 1997

PATH 2209 CHILLERTON DOWN ENG - ALDERNEY CHANNEL IS

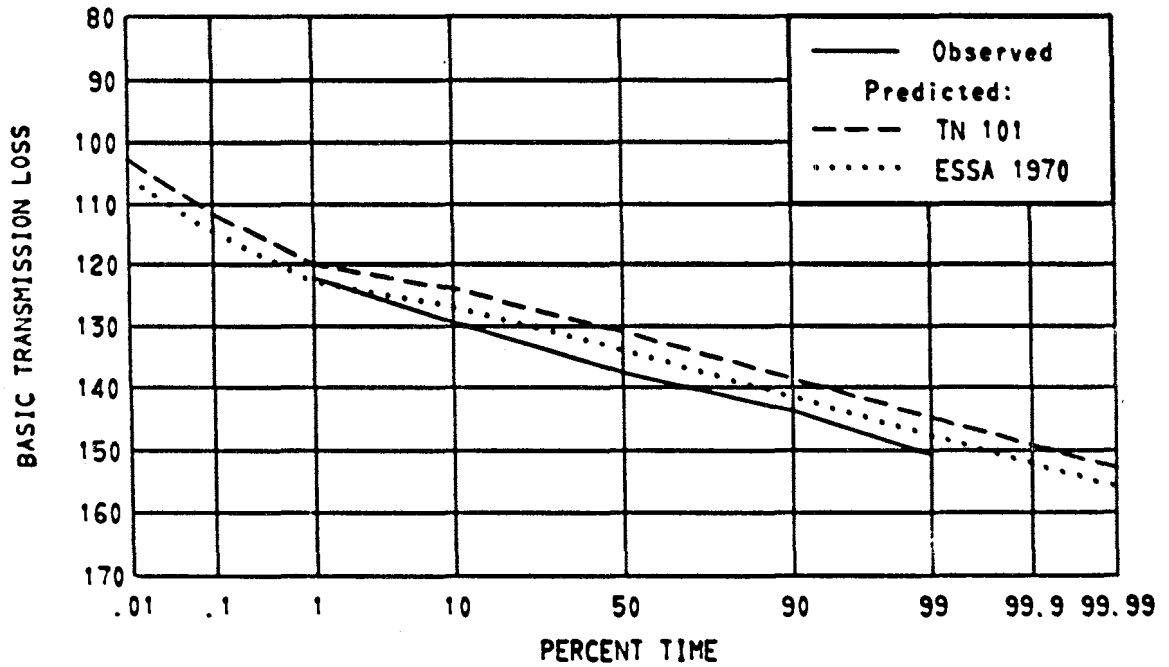
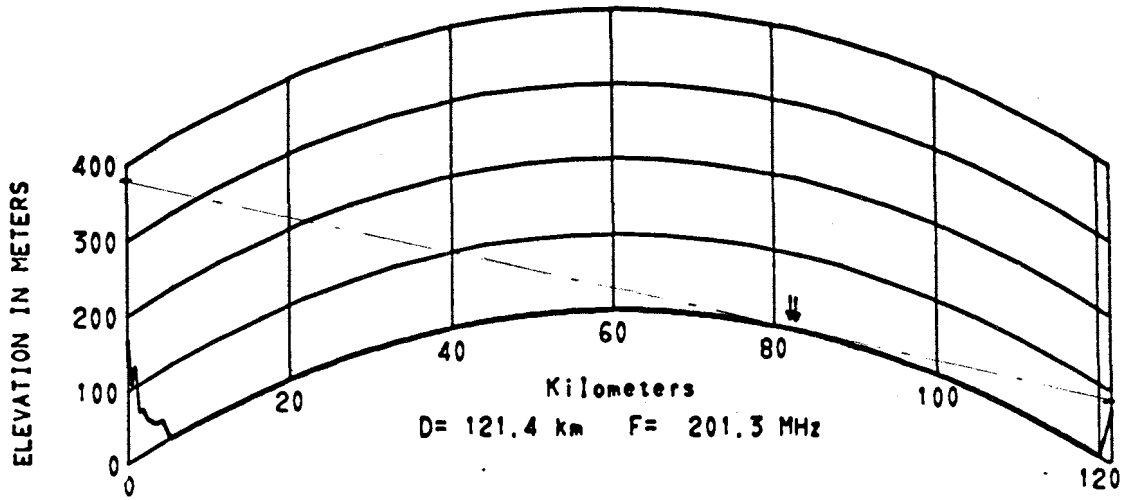


Figure 2.58 Path 2209

PATHS 2092 2093 PETERBOROUGH ENG - CAVERSHAM ENG

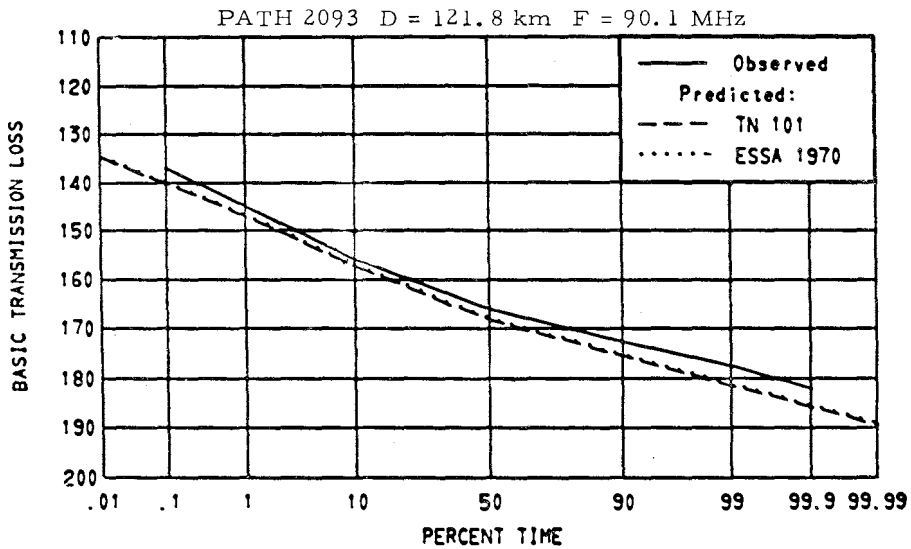
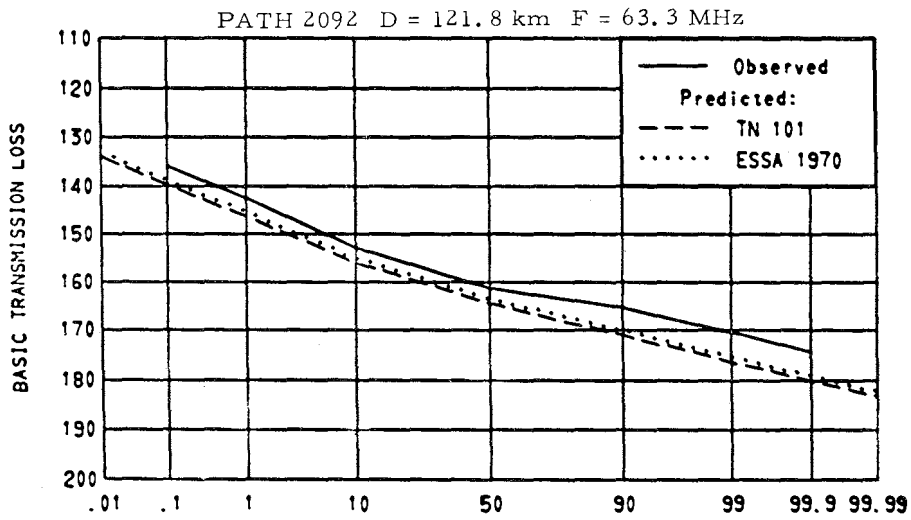
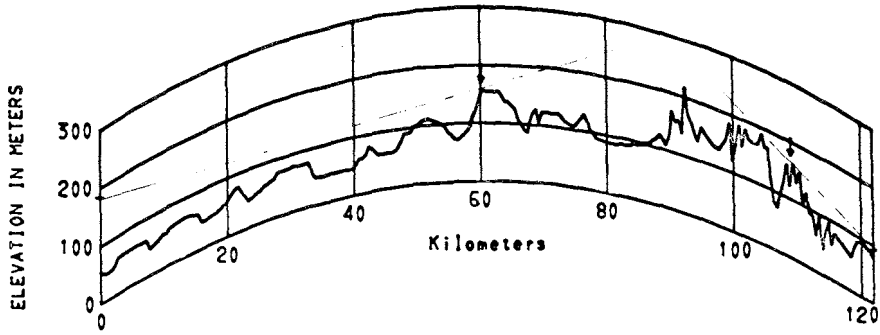


Figure 2.59 Paths 2092 2093

PATH 2208 STOCKLAND HILL ENG - ALDERNEY CHANNEL IS

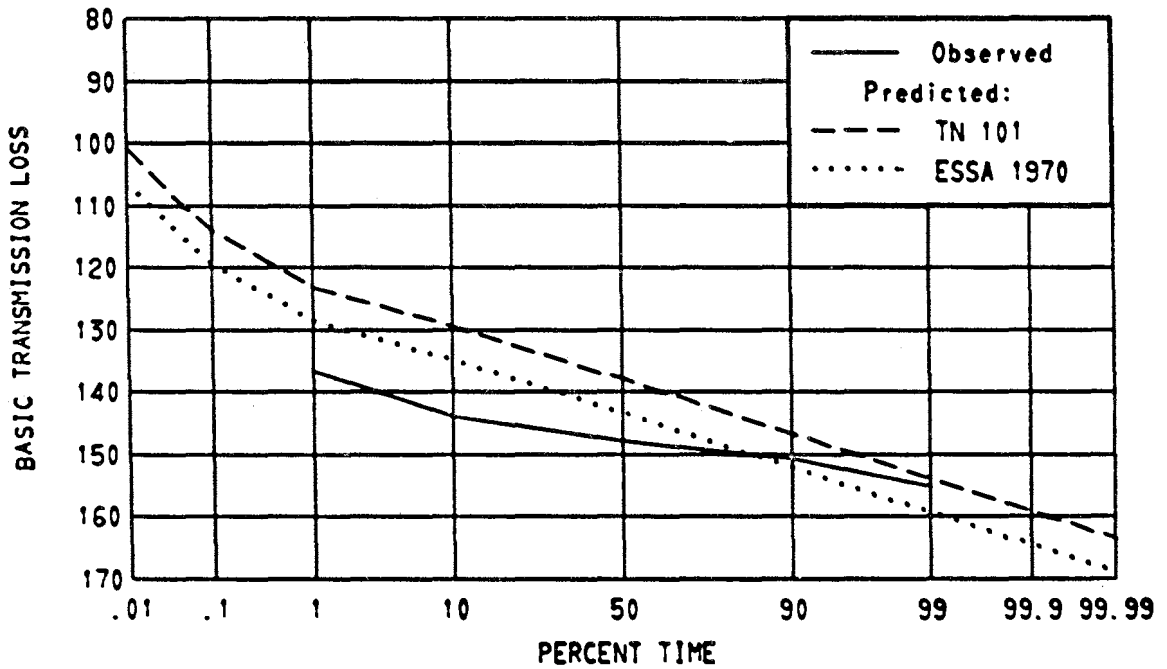
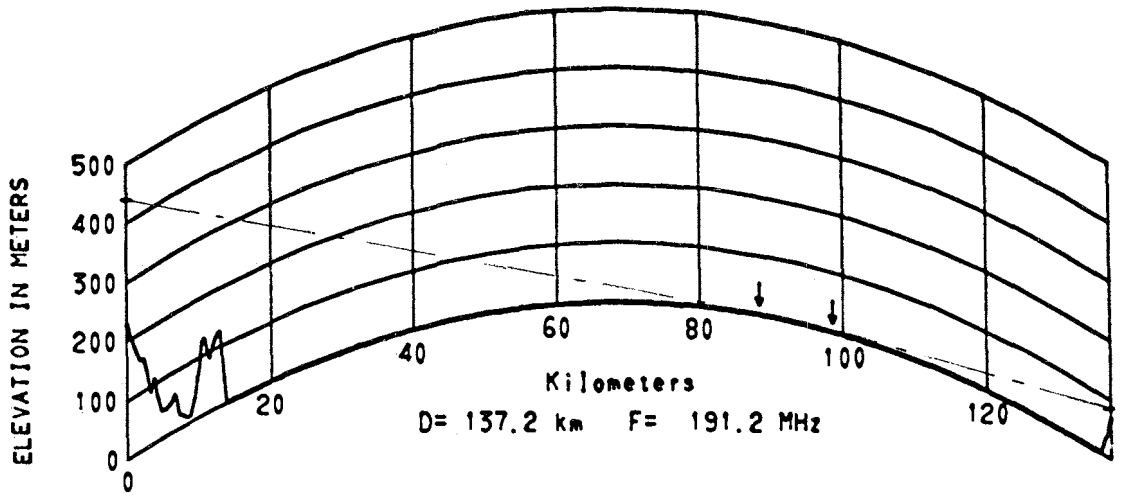
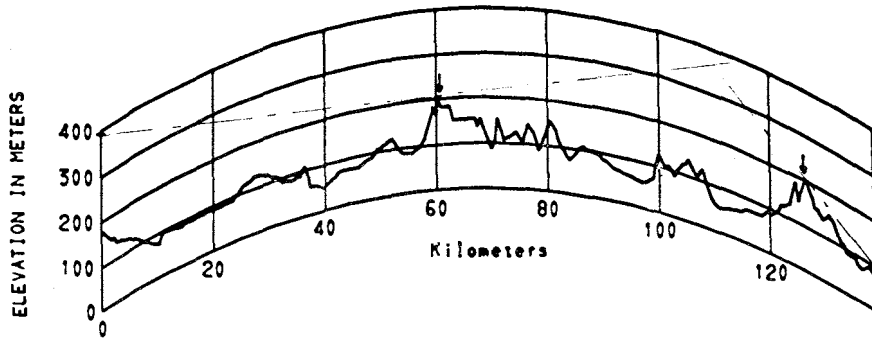
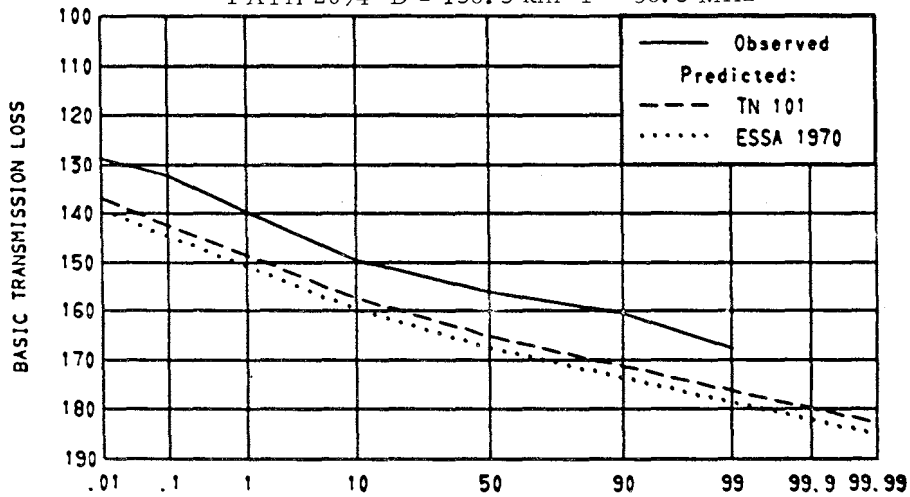


Figure 2.60 Path 2208

PATHS 2094 2095 SUTTON COLDFIELD ENG - CAVERSHAM ENG



PATH 2094 D = 138.3 km F = 58.3 MHz



PATH 2095 D = 138.3 km F = 88.3 MHz

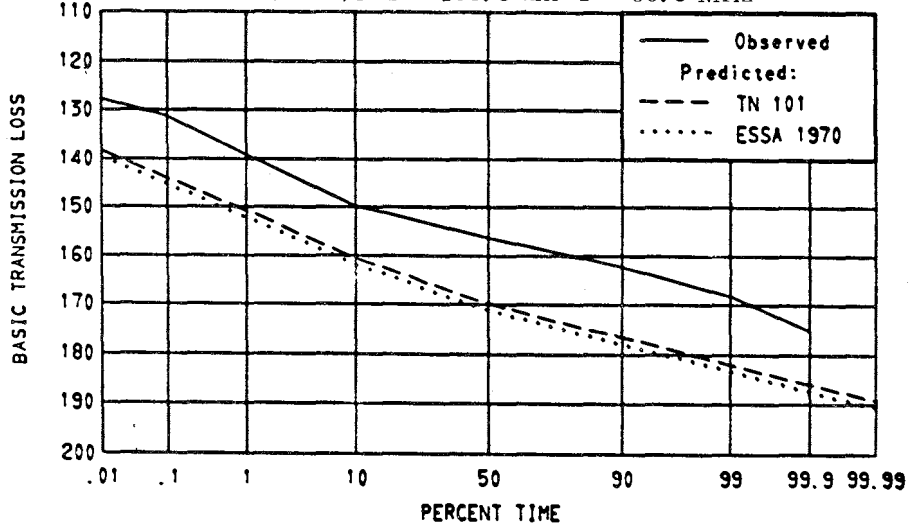


Figure 2.61 Paths 2094 2095

PATH 1999 CRYSTAL PALACE ENG - ALDEBURG ENG

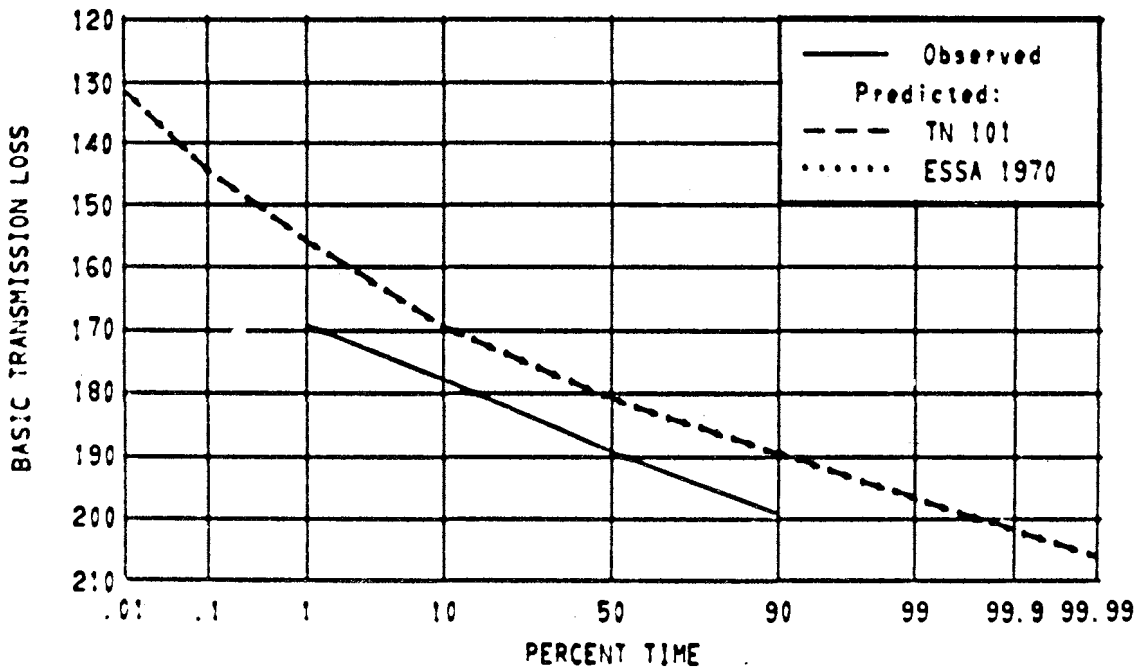
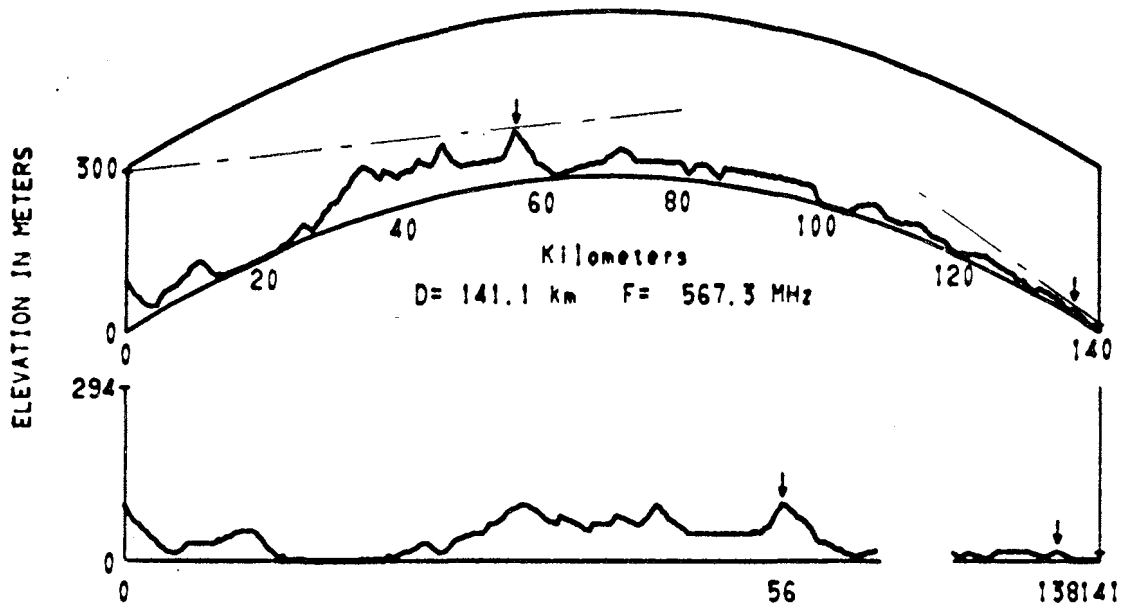


Figure 2.62 Path 1999

PATH 2167 WIDEFORD HILL ORKNEY IS - SCOUSBURGH SHETLAND IS

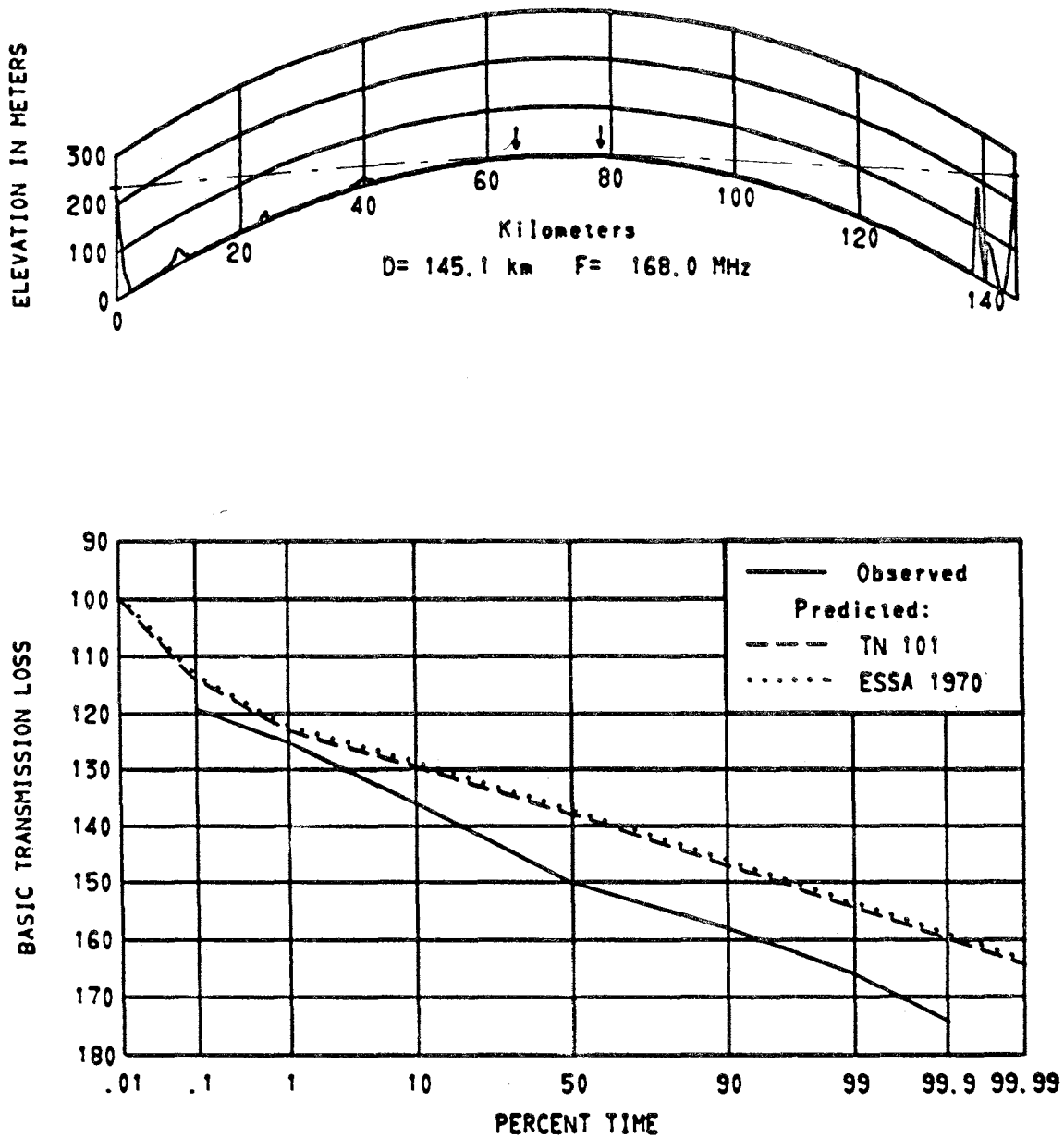


Figure 2.63 Path 2167

PATH 2142 NETHERBUTTON ORKNEY IS - SCOUSBURGH SHETLAND IS

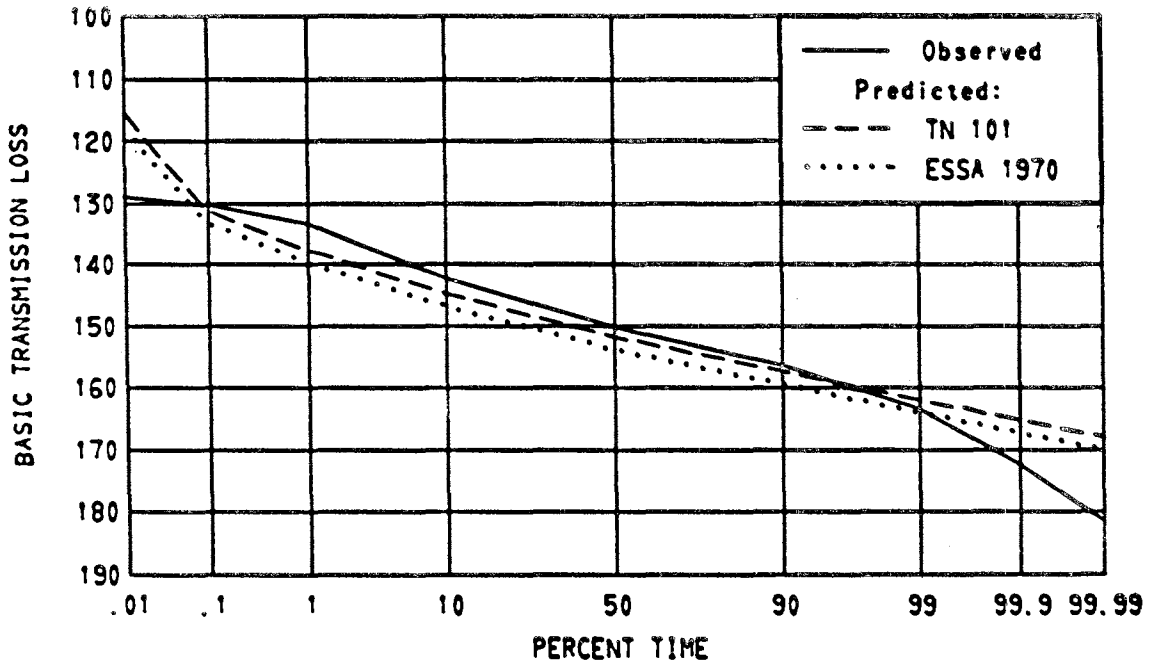
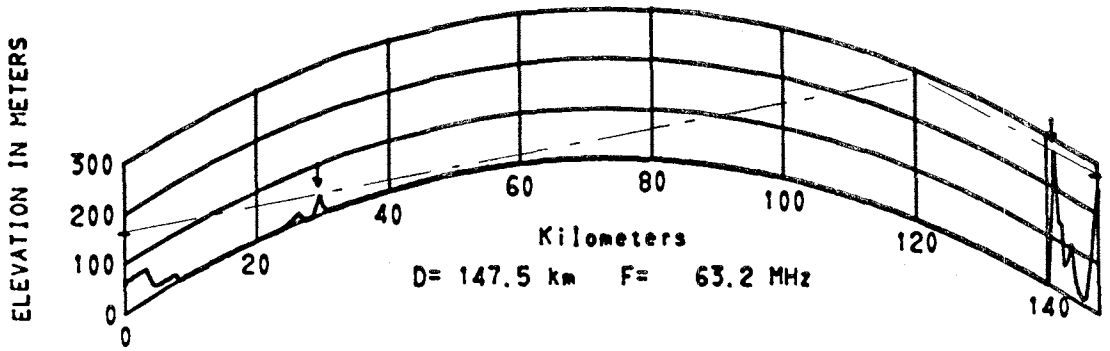


Figure 2.64 Path 2142

PATH 2203 ROWRIDGE ENG - MURSLEY ENG

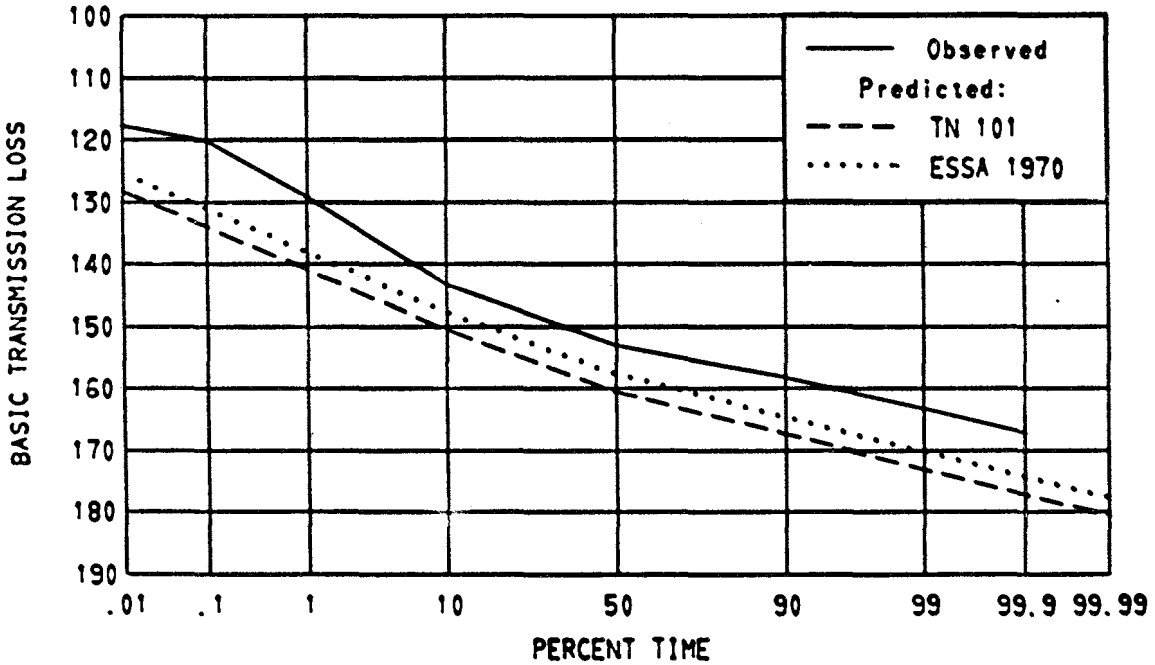
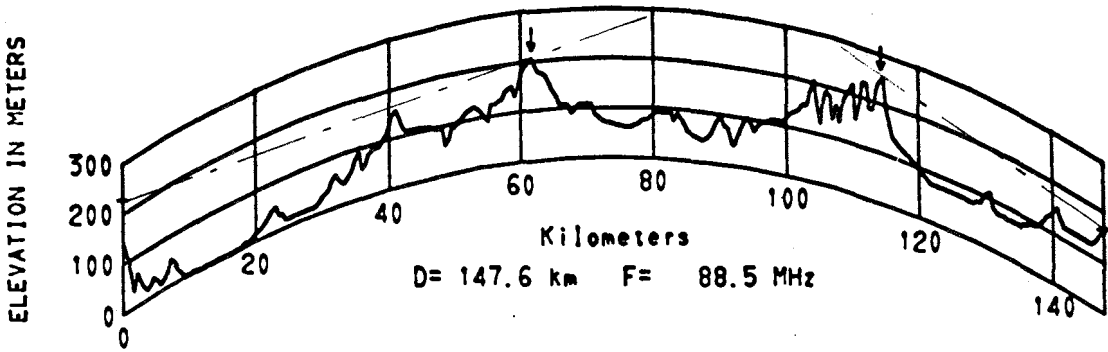


Figure 2.65 Path 2203

PATH 2071 SUTTON COLDFIELD ENG - SLOUGH ENG

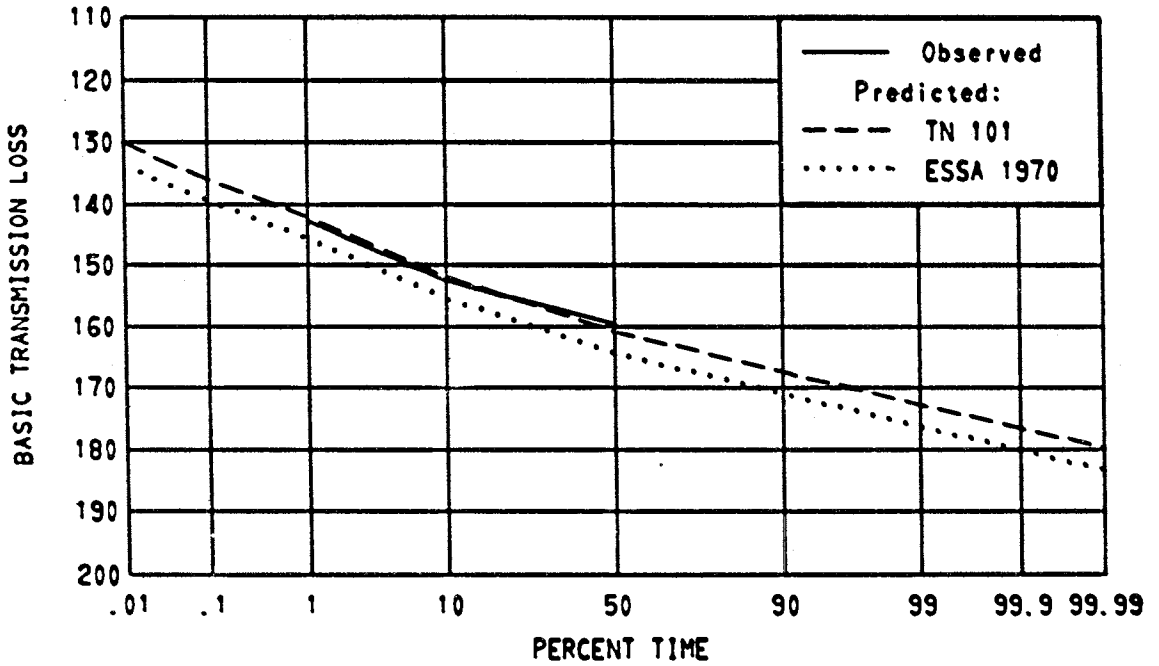
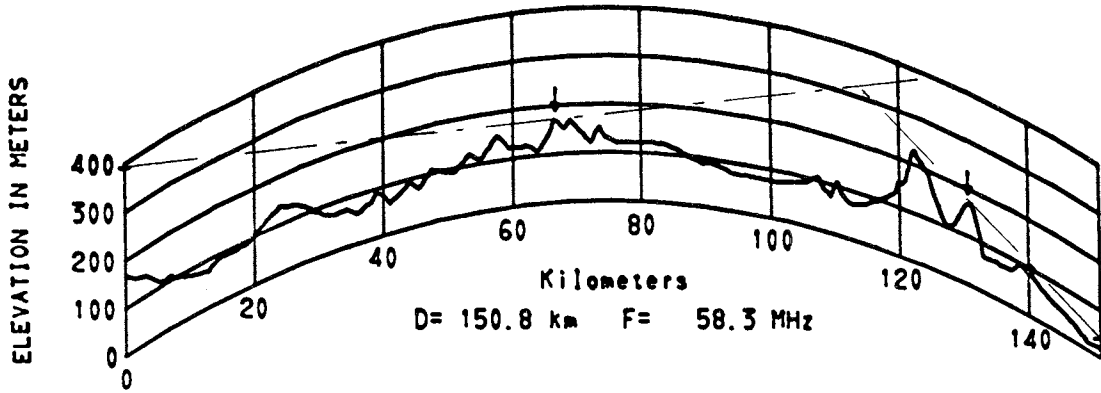


Figure 2.66 Path 2071

PATH 2123 SUTTON COLDFIELD ENG - DATCHET ENG

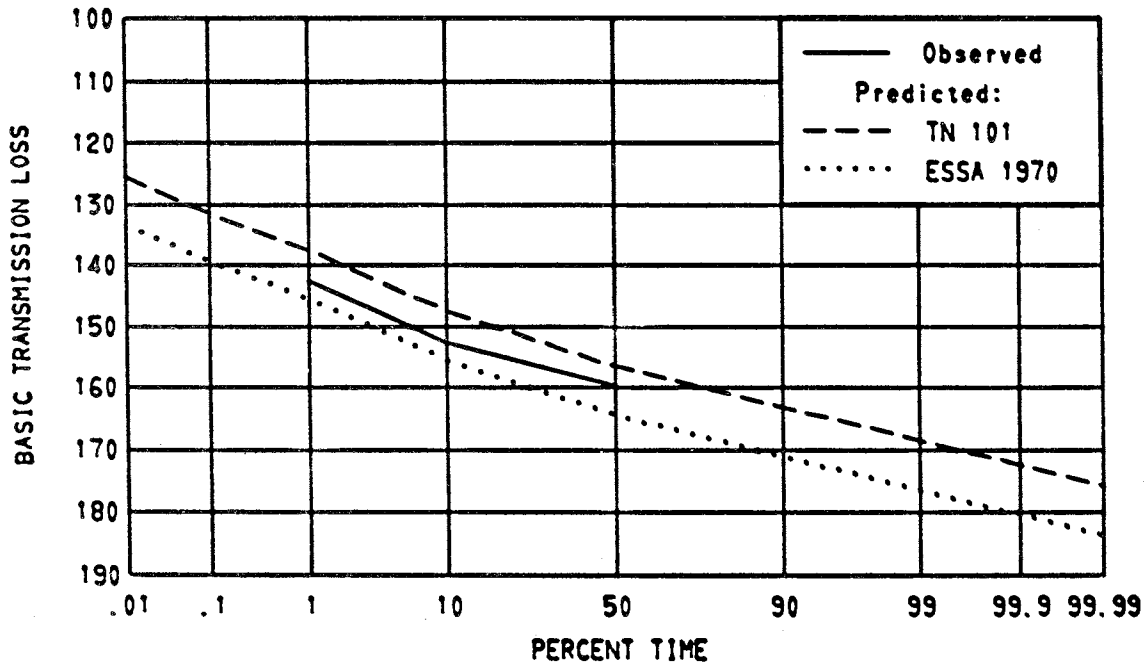
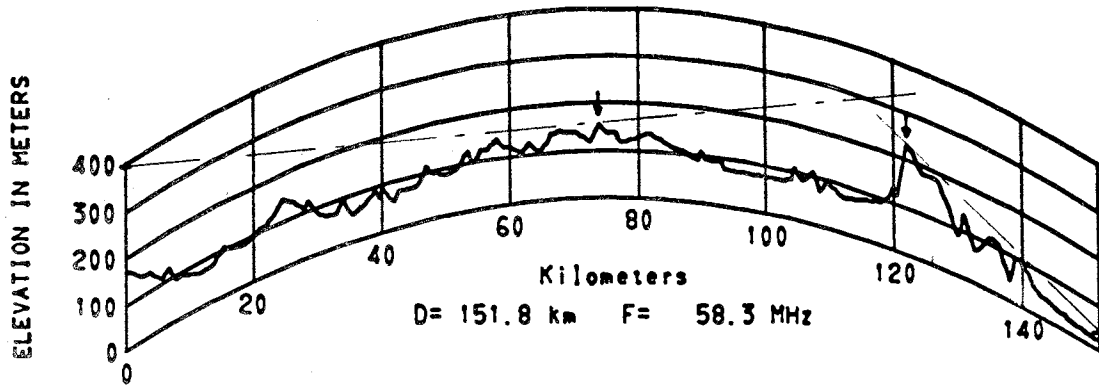


Figure 2.67 Path 2123

PATH 2096 WENVOE WALES - CAVERSHAM ENG

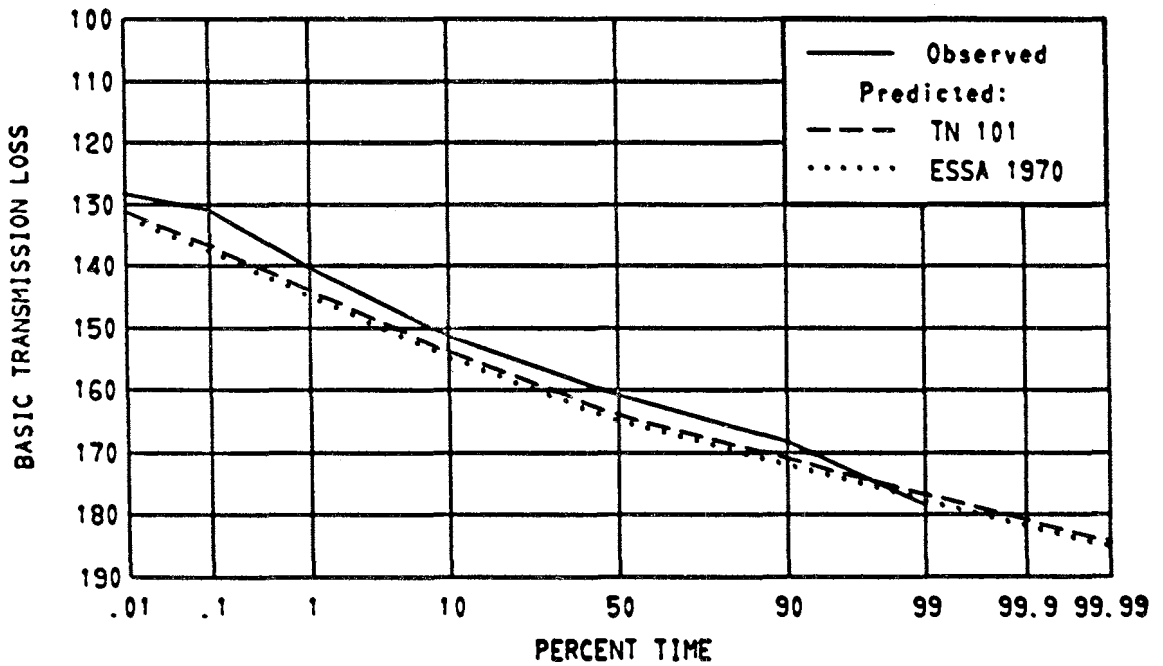
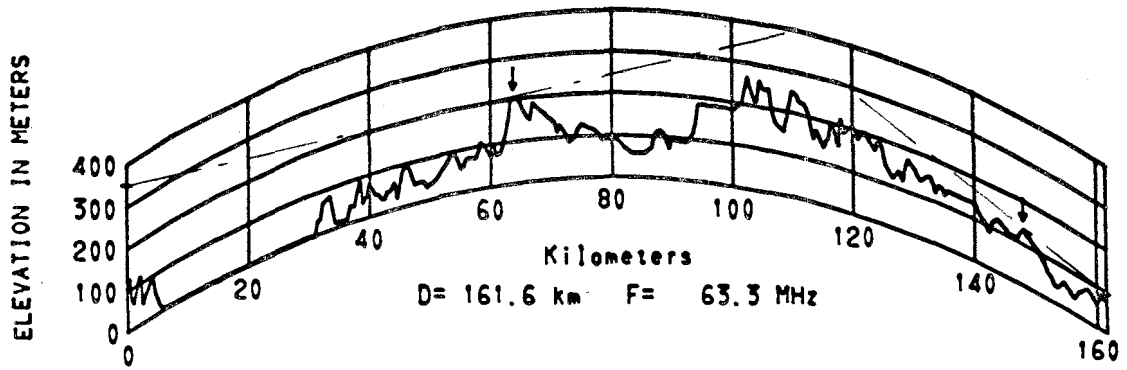


Figure 2.68 Path 2096

PATH 2131 ROWRIDGE ENG - STOKE FLEMING ENG

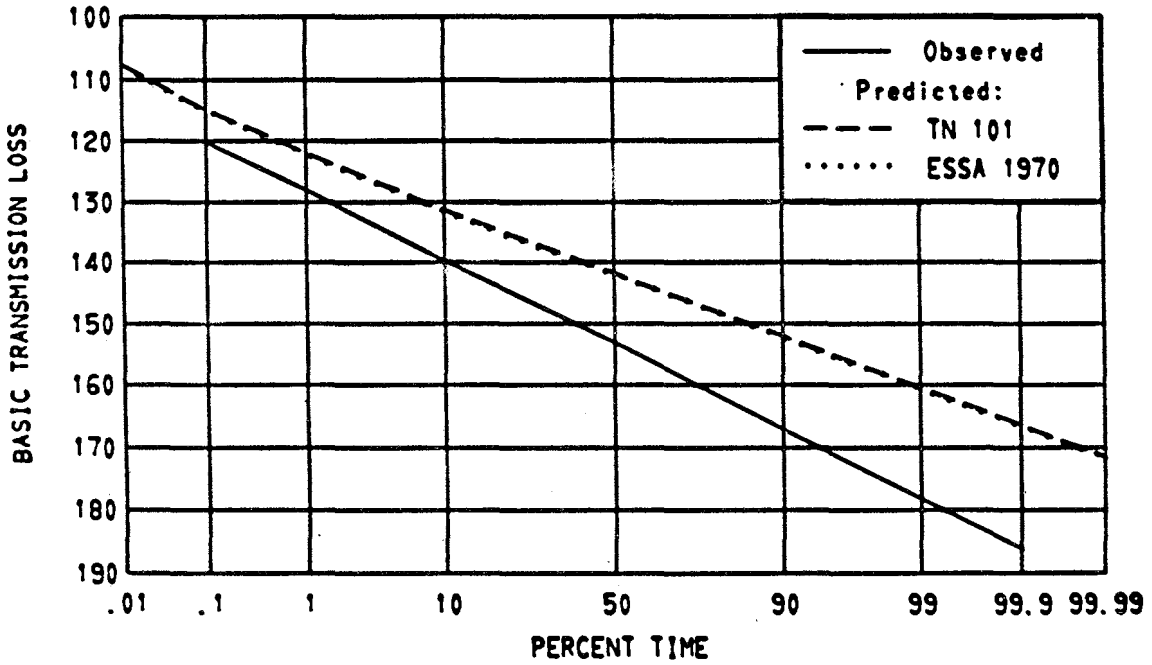
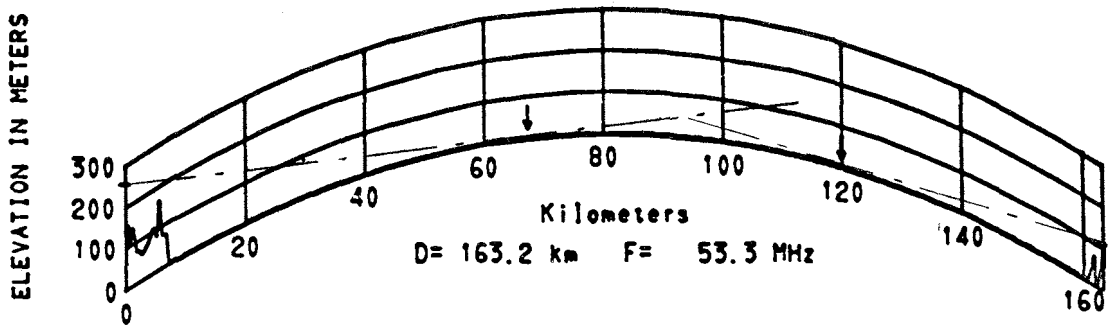


Figure 2.69 Path 2131

PATH 2158 CHILLERTON DOWN ENG - STOKE FLEMING ENG

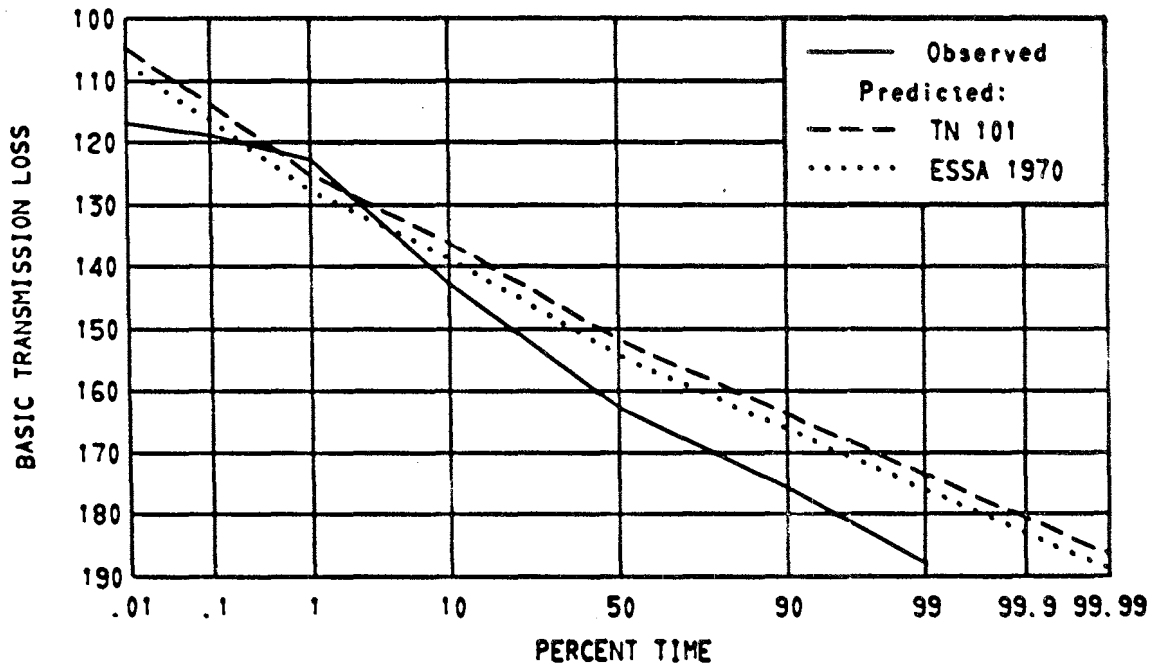
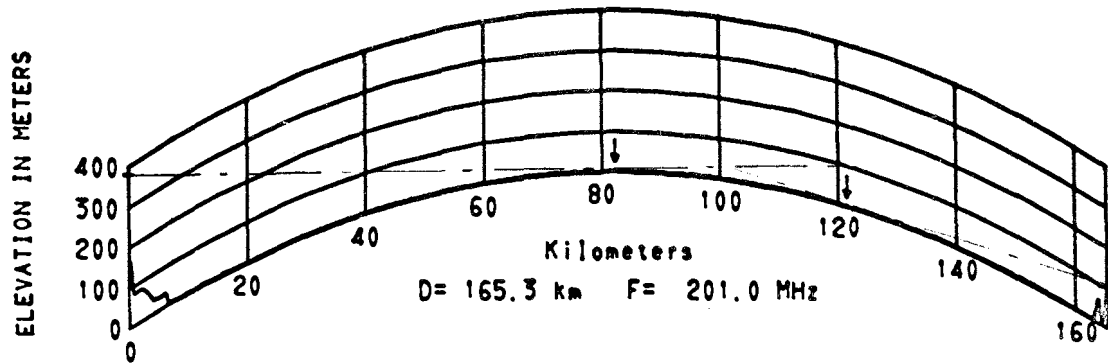


Figure 2.70 Path 2158

PATH 2114 HOLME MOSS ENG - BANBURY ENG

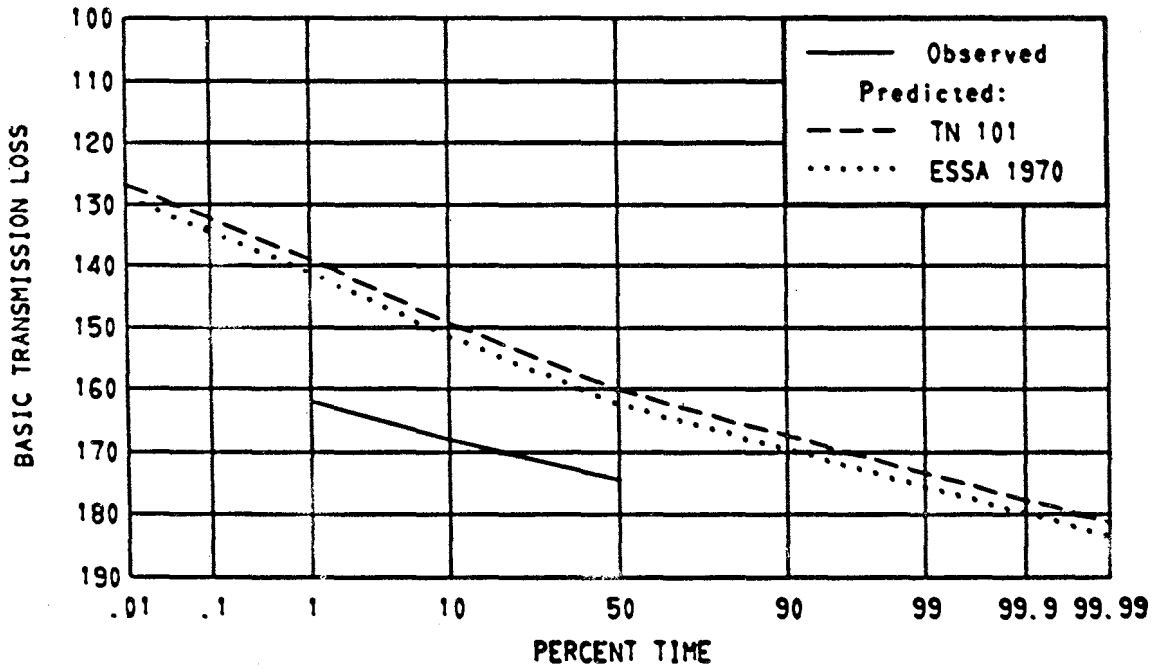
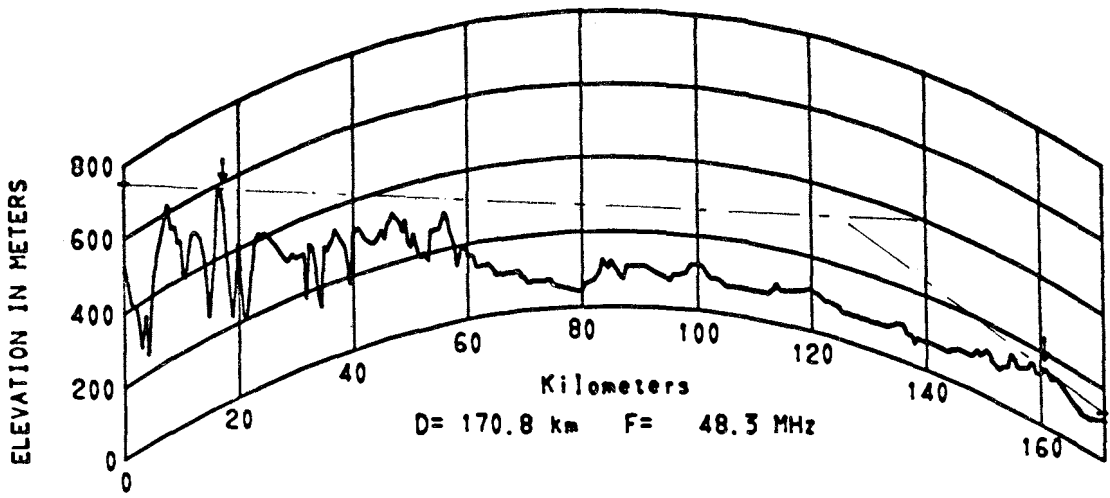


Figure 2.71 Path 2114

PATHS 2204 2205 WENVOE WALES - MURSLEY ENG

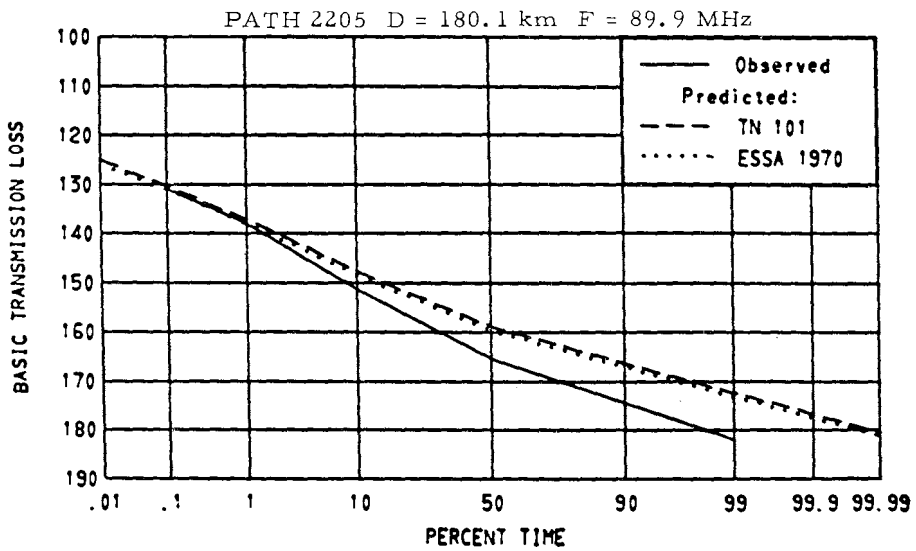
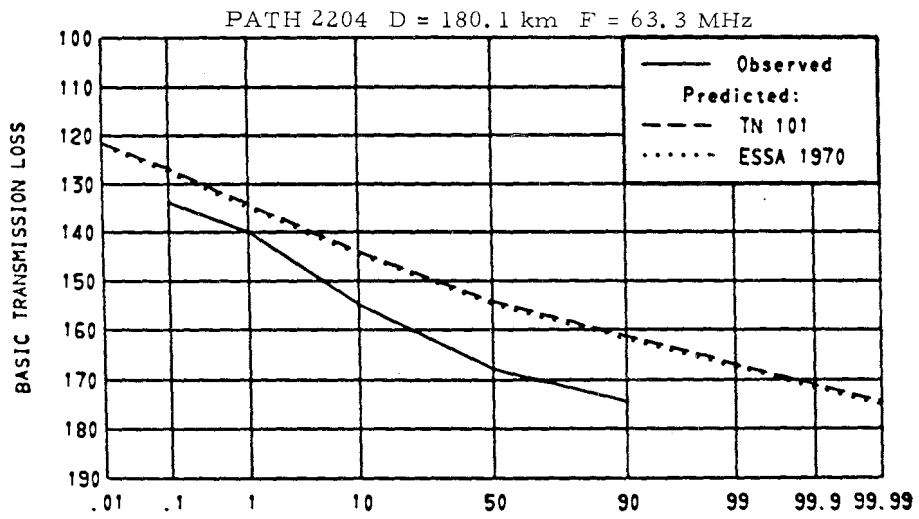
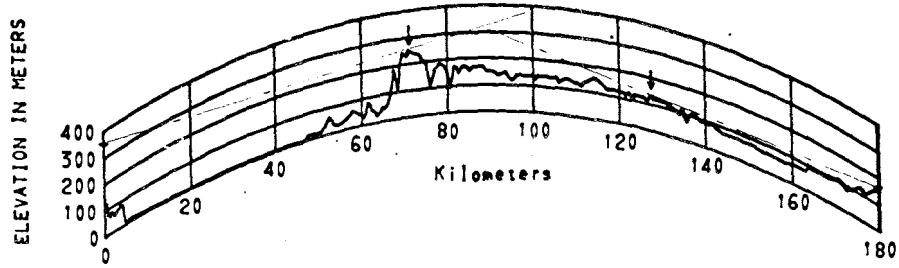


Figure 2.72 Paths 2204 2205

PATH 2026 SUTTON COLDFIELD ENG - KINGSWOOD ENG

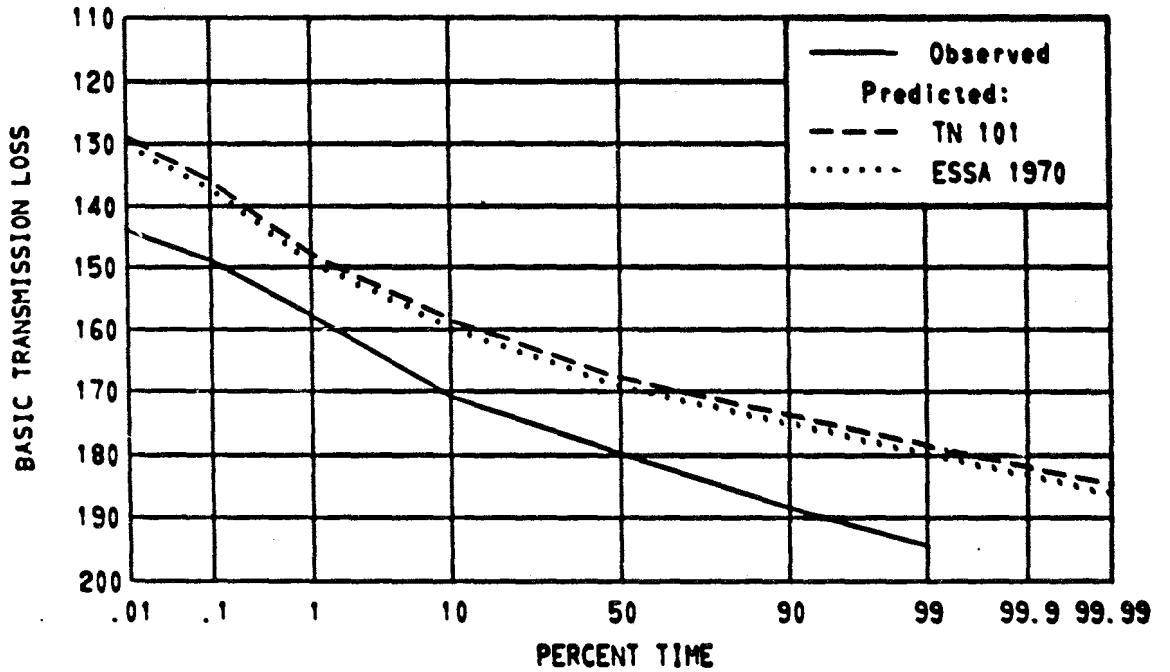


Figure 2.73 Path 2026

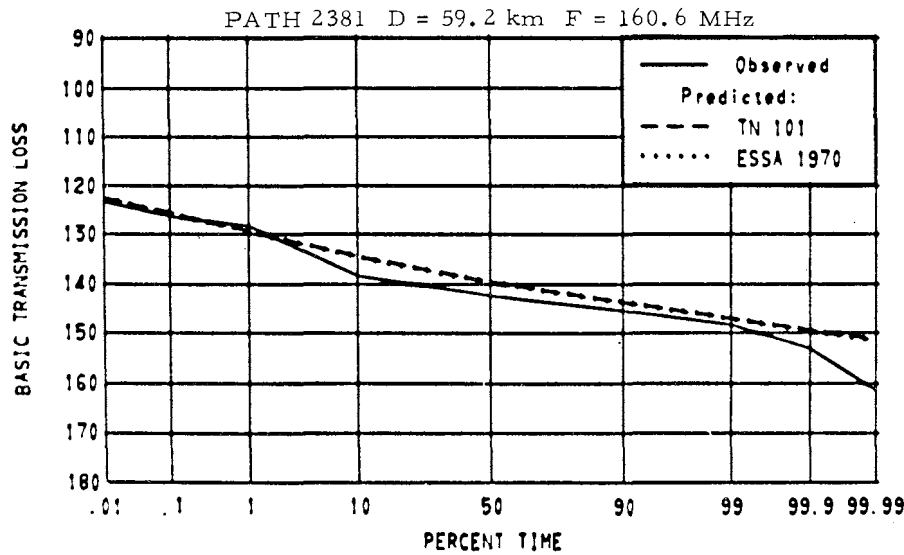
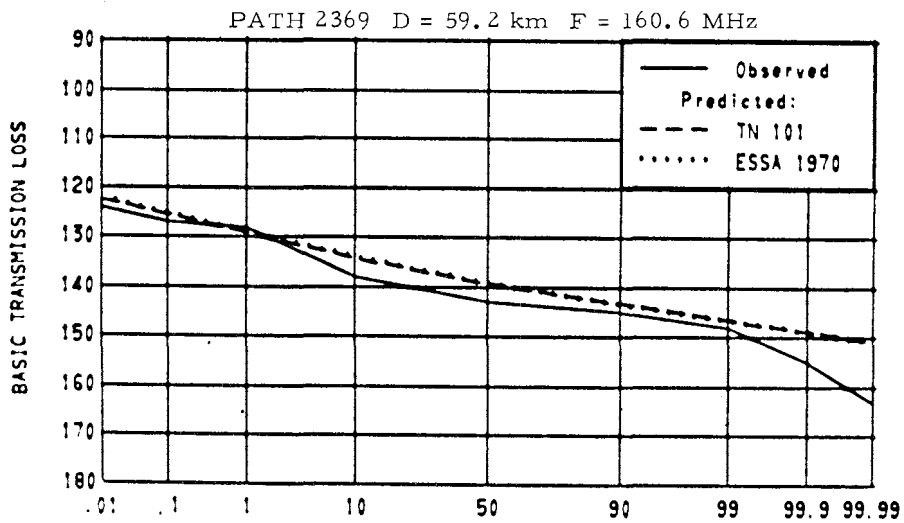
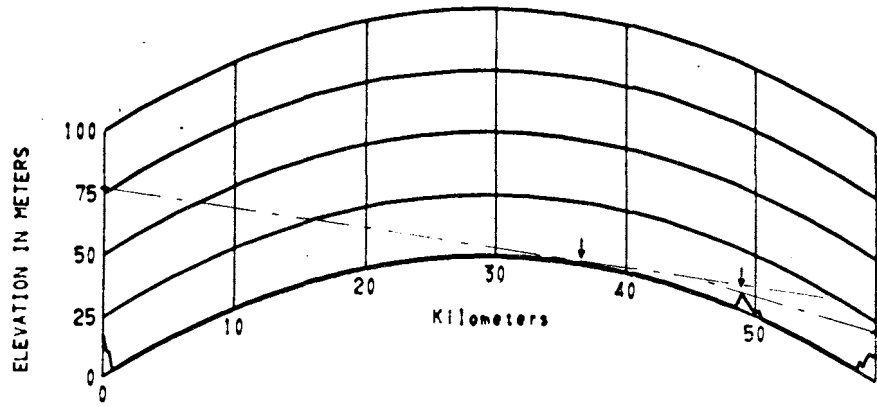


Figure 2.74 Paths 2369 2381

PATHS 2373 2382 WEDDEWARDEN W GER - HELGOLAND W GER

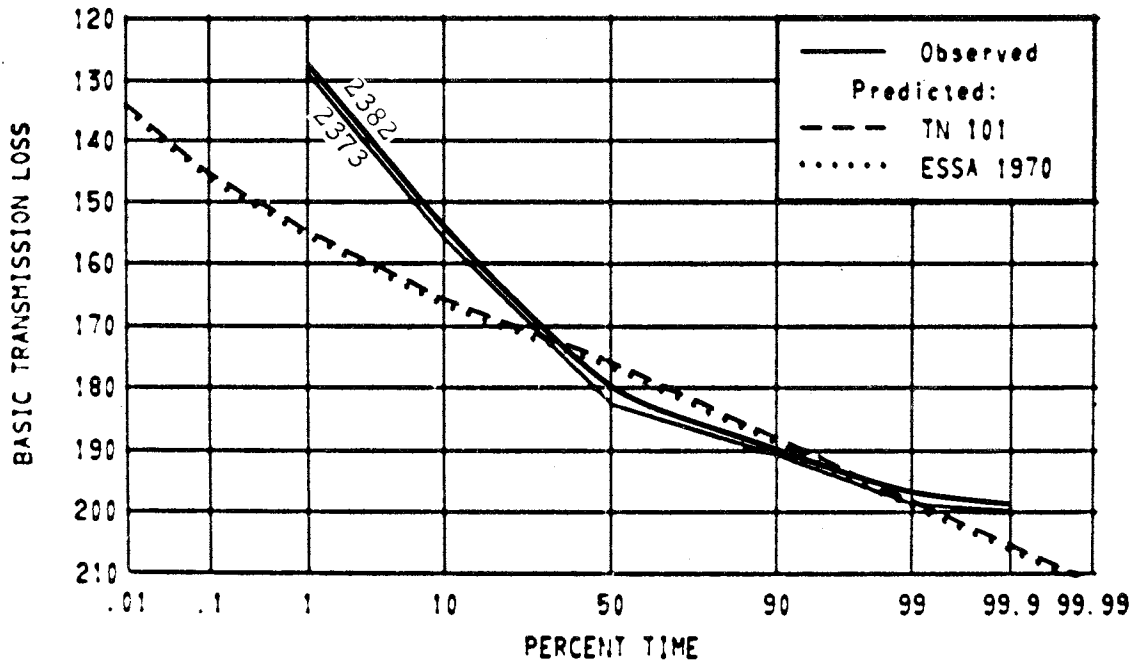
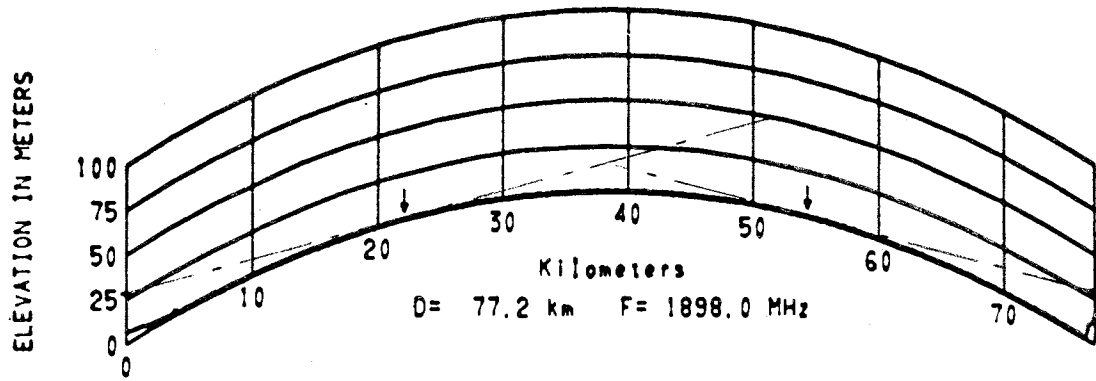


Figure 2.75 Paths 2373 2382

PATH 2374 BIELSTEIN W GER - VERDEN W GER

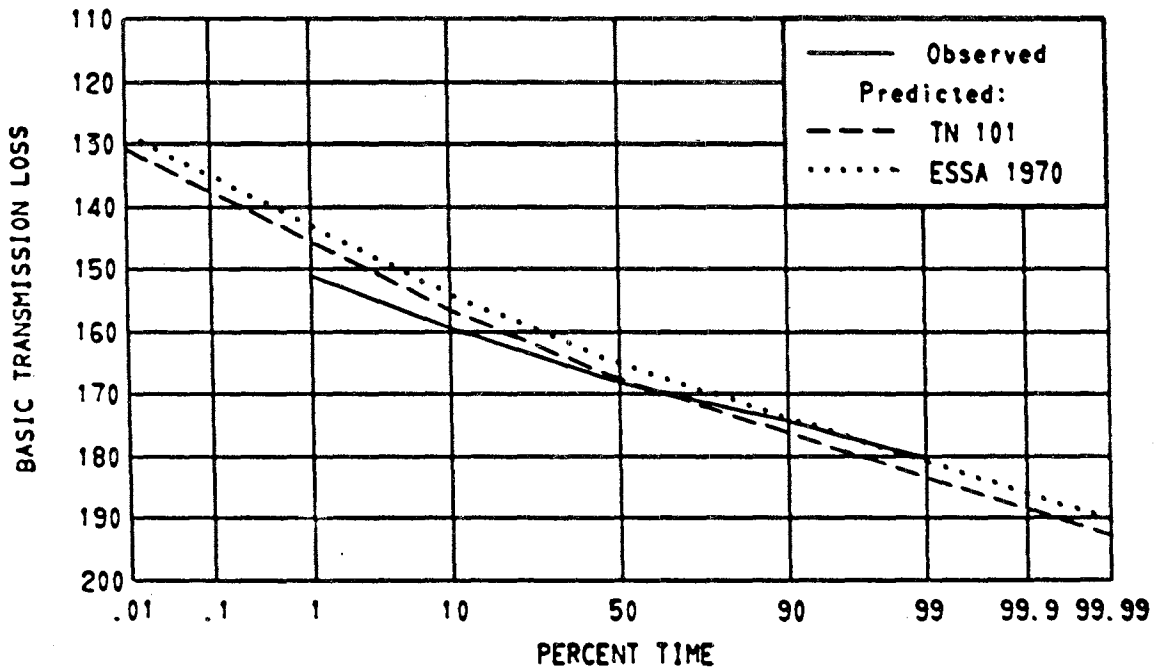
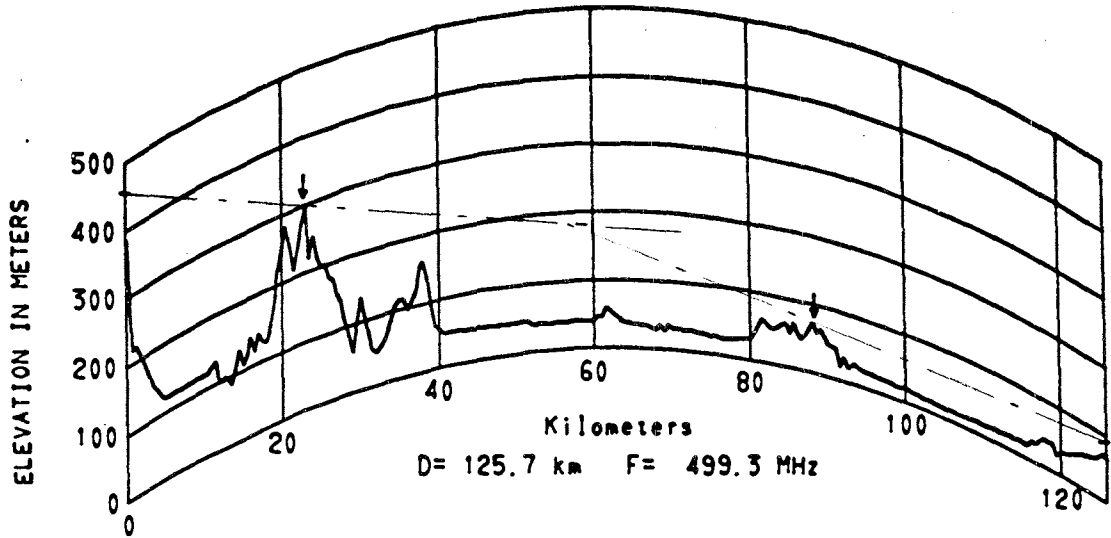


Figure 2.76 Path 2374

PATHS 2277 2278 INAMI JAPAN - MUROTOMISAKI JAPAN

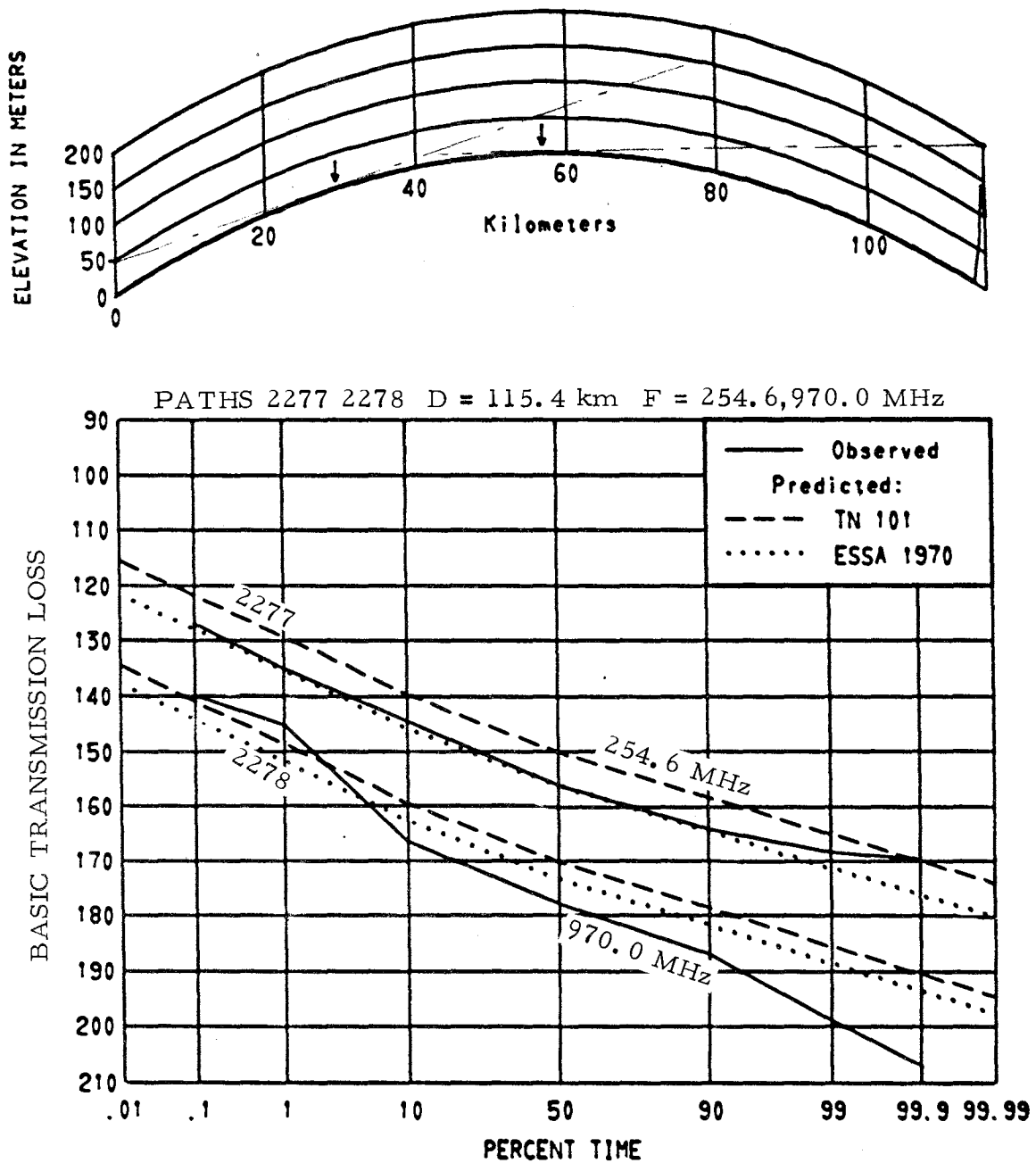


Figure 2.77 Paths 2277 2278

PATHS 2308 2309 INUBO JAPAN - KOKUBUNJI JAPAN

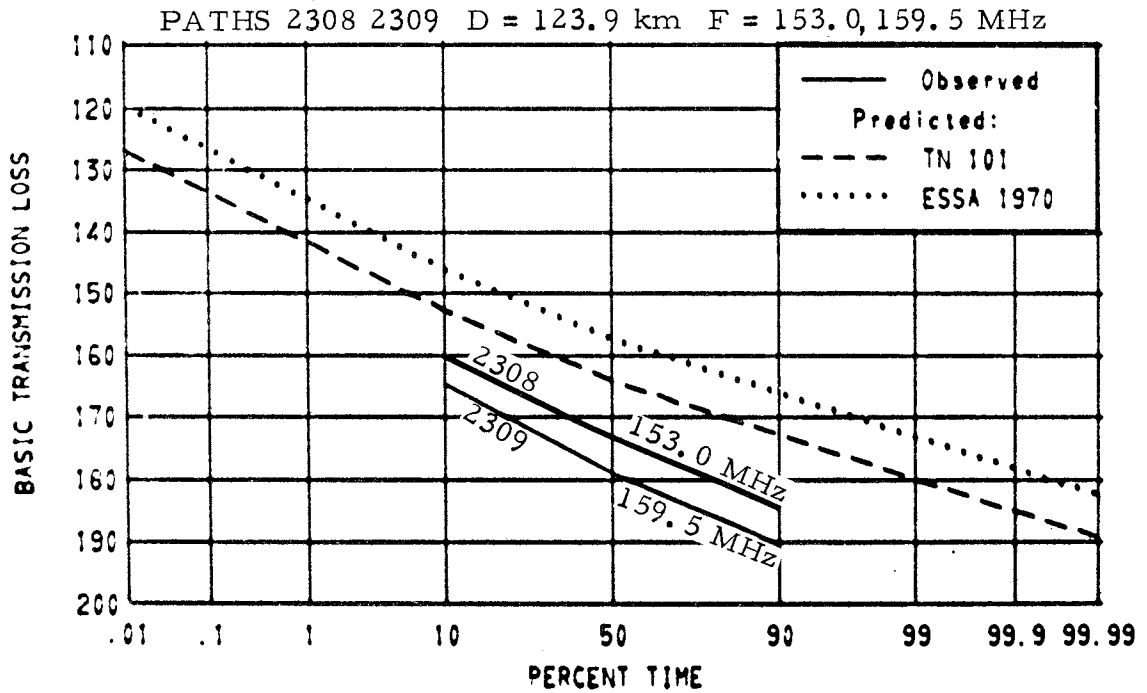
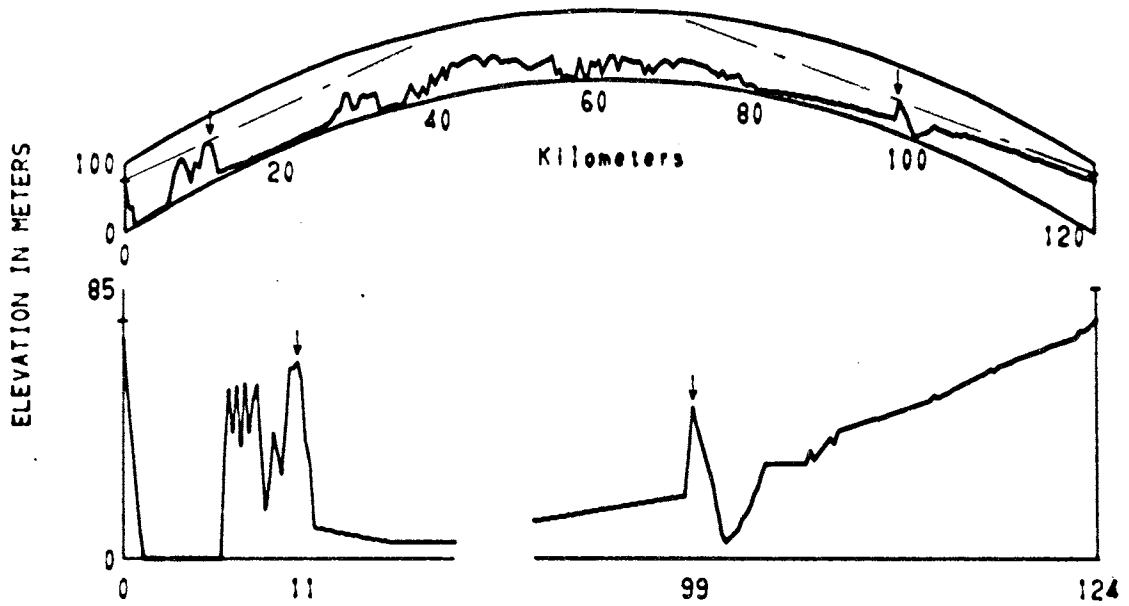


Figure 2.78 Paths 2308 2309

PATH 2314 KOKUBUNJI JAPAN - HIRAIISO JAPAN

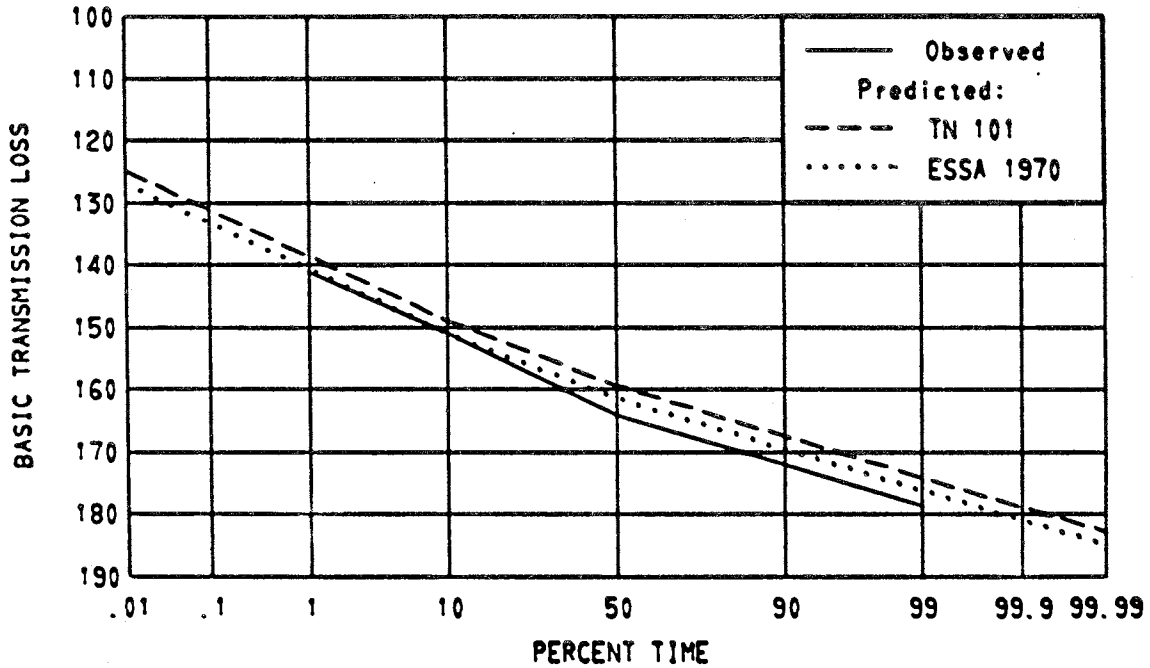
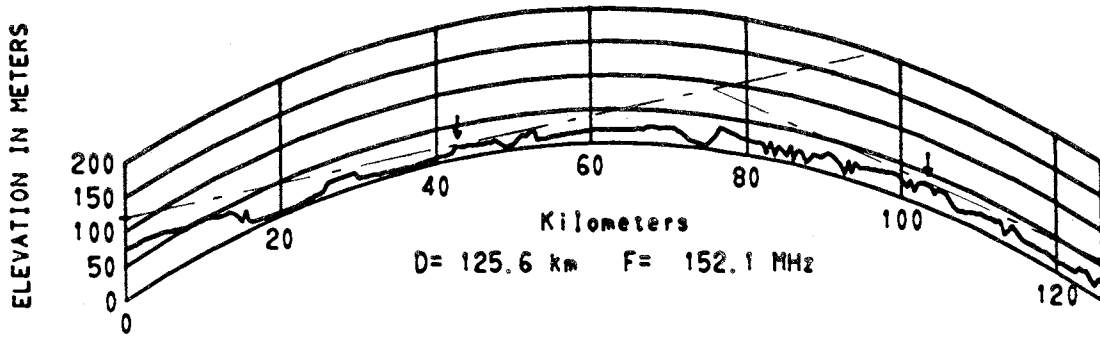


Figure 2.79 Path 2314

PATHS 2263 2264 TOKYO TOWER JAPAN - KUROISO JAPAN

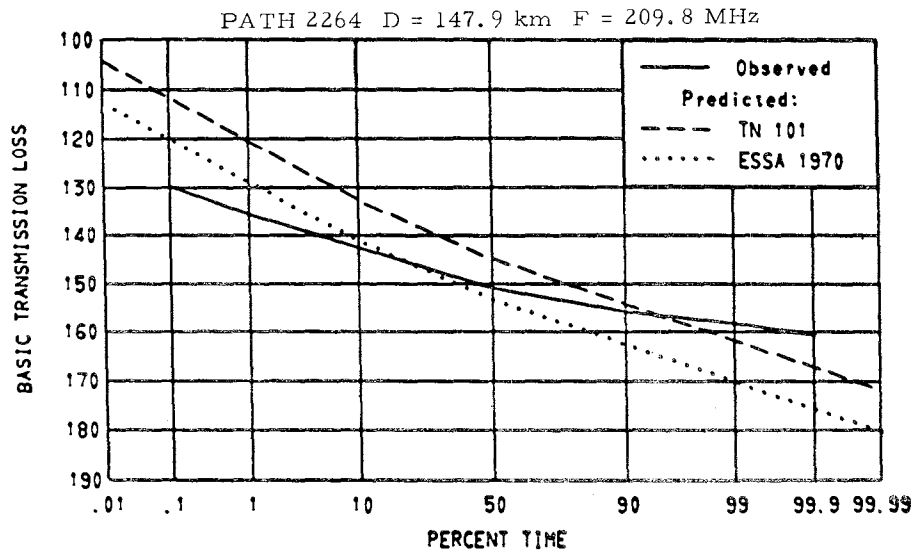
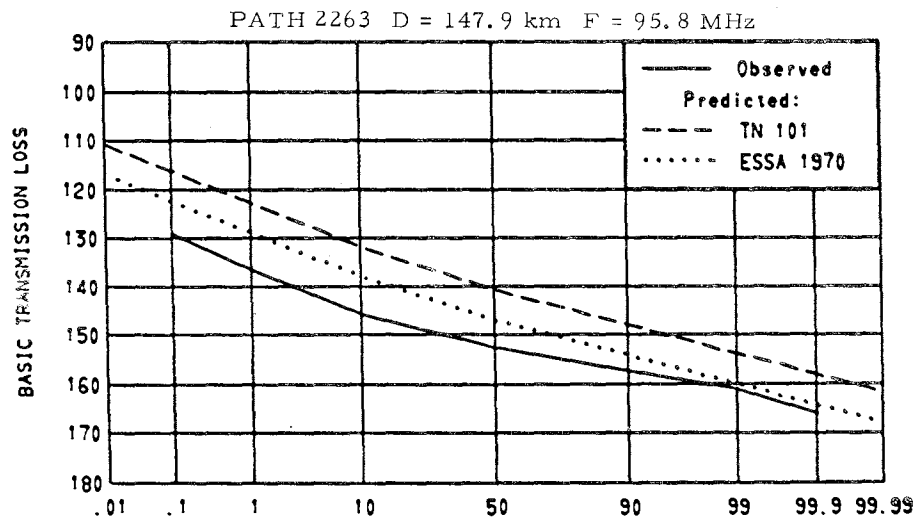
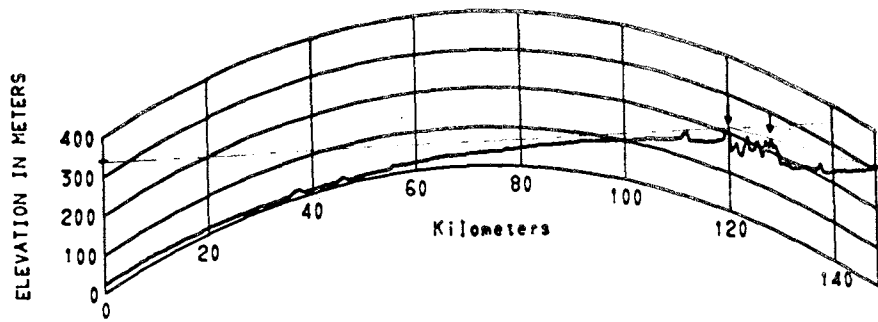
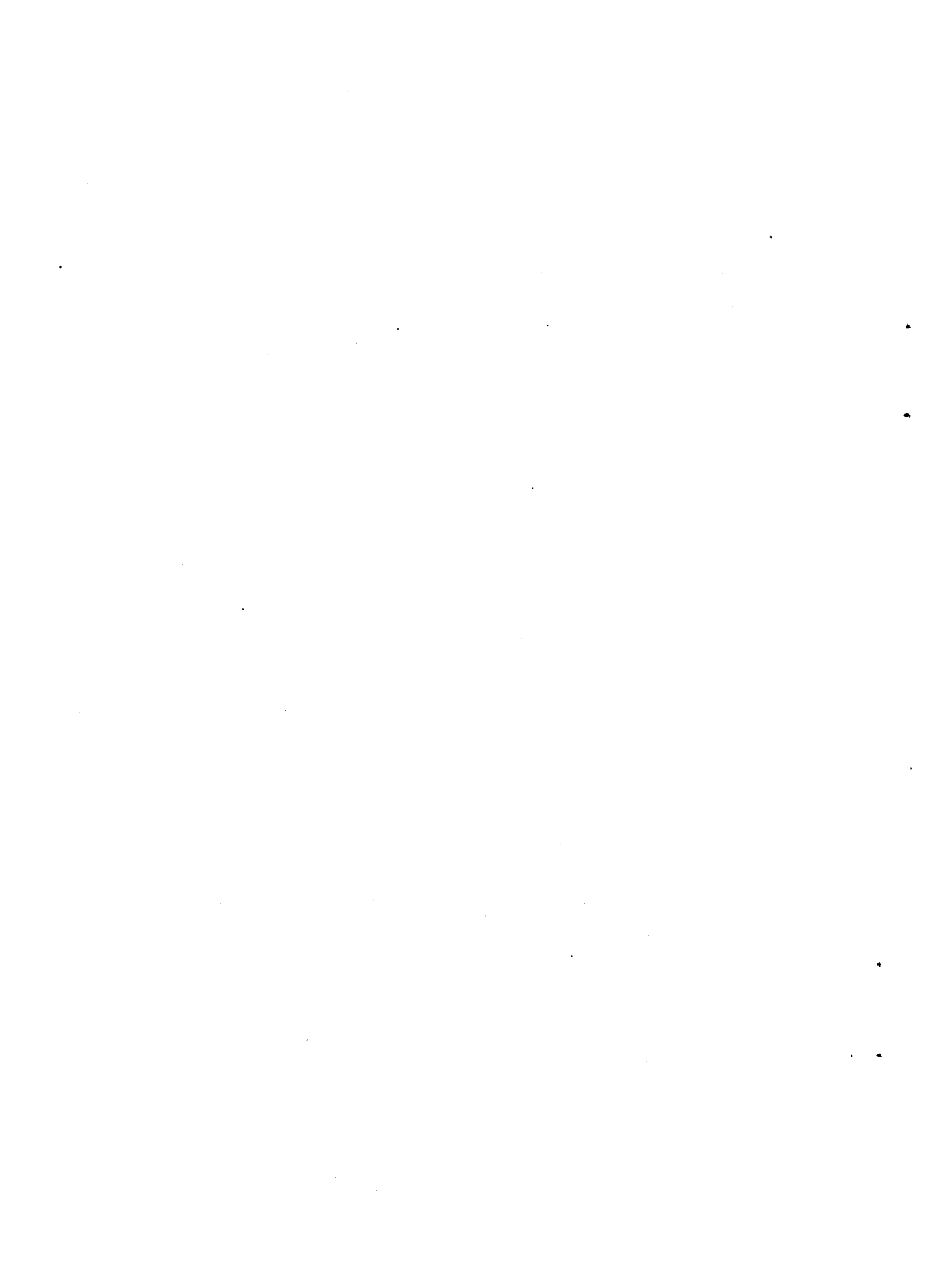


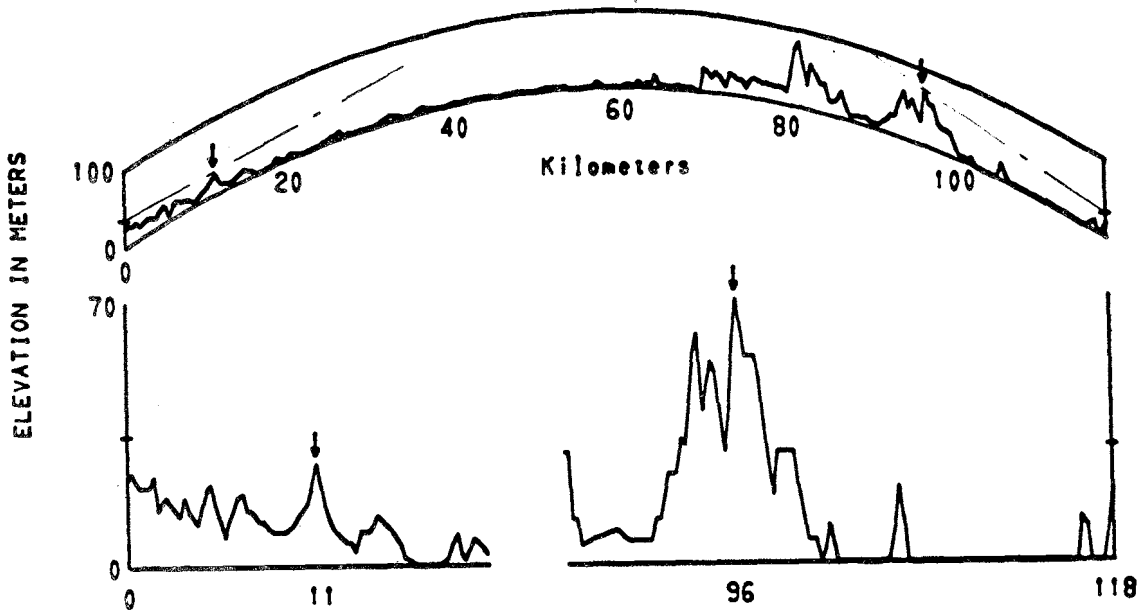
Figure 2.80 Paths 2263 2264



PART 3
Forward Scatter Paths

| | <u>Figure Nos.</u> |
|---------------------------------------|--------------------|
| A. United States | 3.1 to 3.71 |
| B. United Kingdom | |
| 1. Within the British Isles | 3.72 to 3.131 |
| 2. The Continent to the British Isles | 3.132 to 3.158 |
| 3. England to West Germany | 3.159 to 3.161 |
| C. West Germany | 3.162 to 3.171 |
| D. Japan | 3.172 to 3.193 |
| E. Other | 3.194 to 3.201 |

PATHS 588 590 MOORESTOWN N J - ABERDEEN MD



PATHS 588 590 D = 118.1 km F = 391.5, 2820.0 MHz

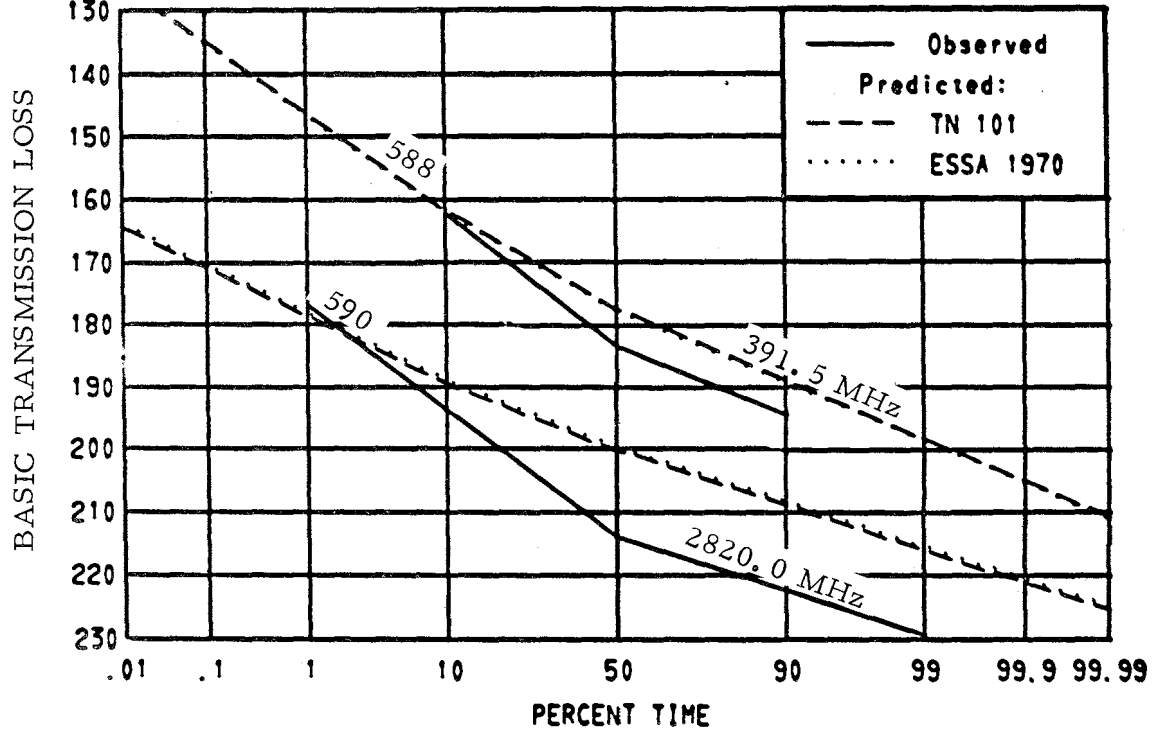


Figure 3.1 Paths 588 590

PATH 450 CEDAR RAPIDS IOWA - MITCHELLVILLE IOWA

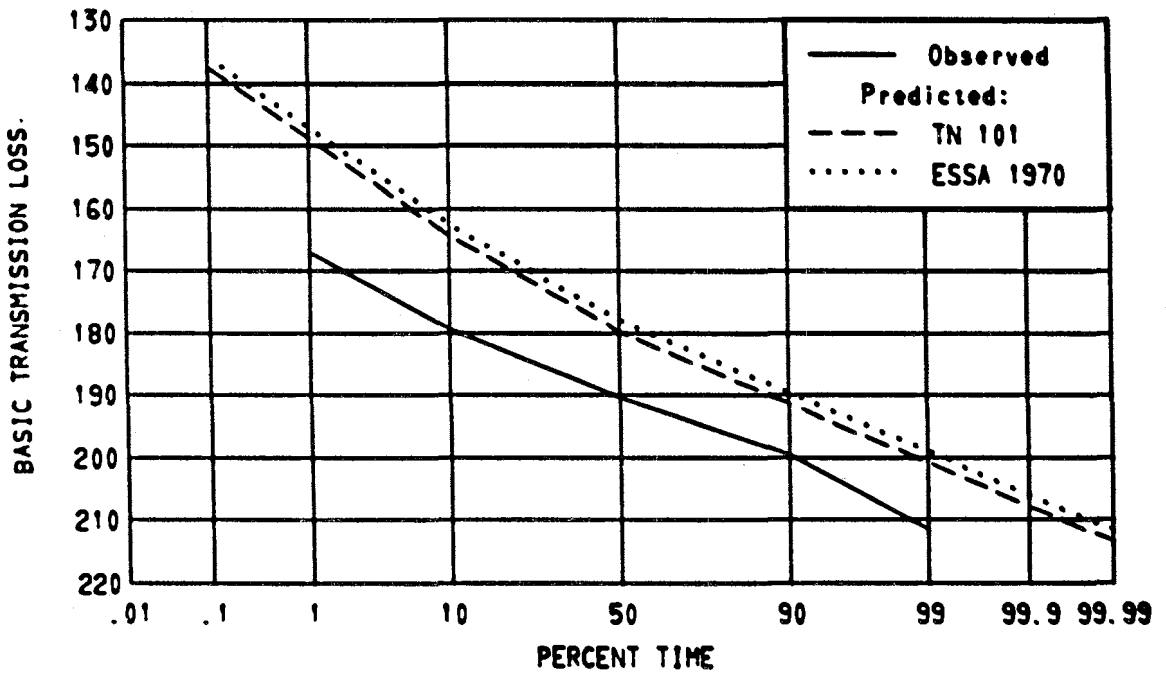
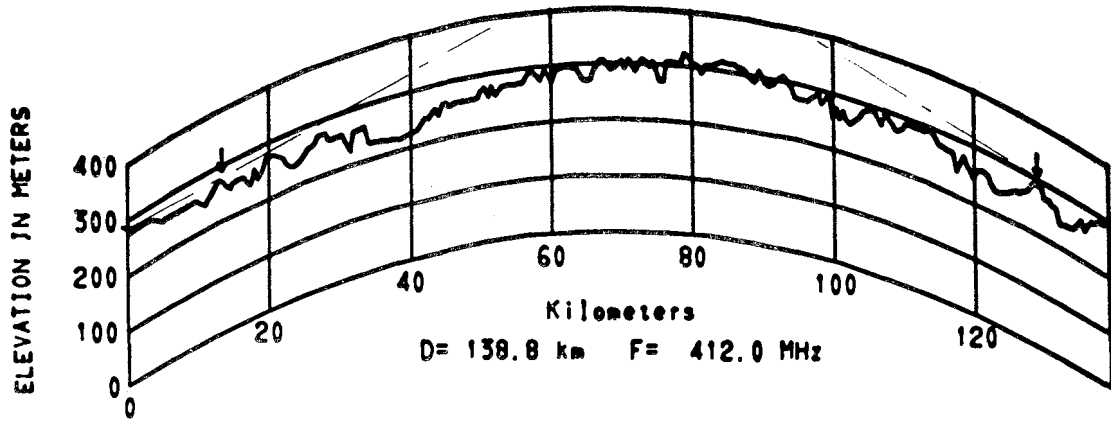


Figure 3.2 Path 450

PATH 1715 FT HUACHUCA ARIZ - RED ROCK ARIZ

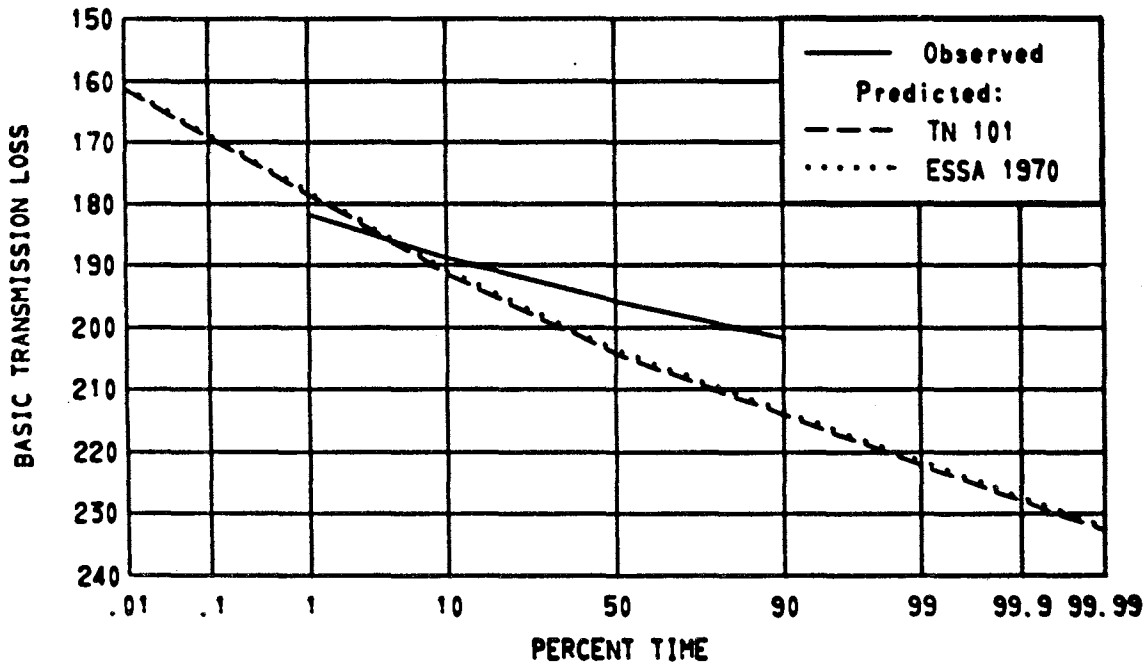
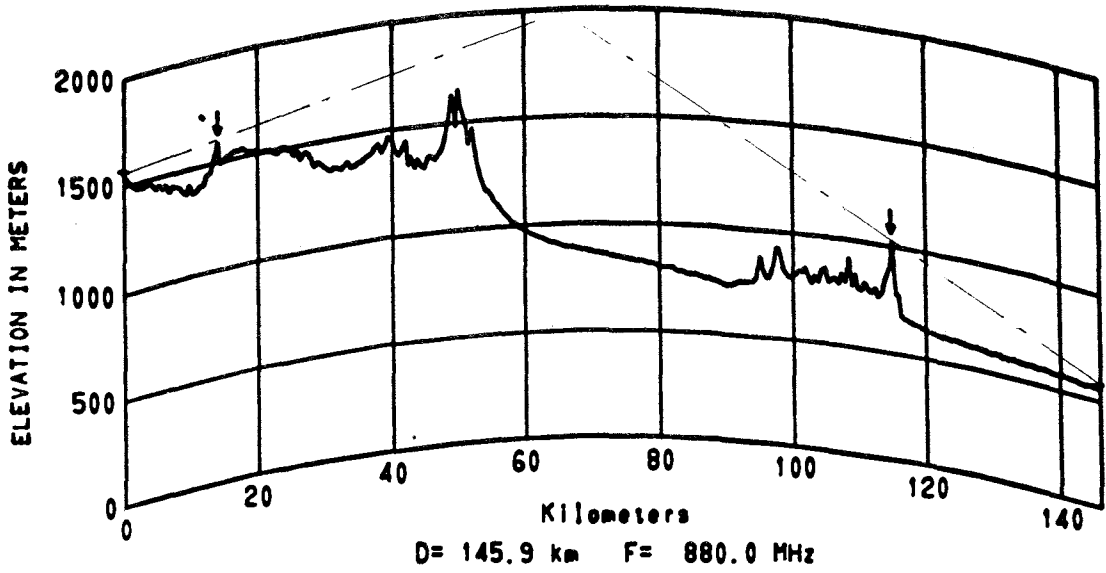


Figure 3.3 Path 1715

PATH 41 OLEAN N Y - STATE COLLEGE PA

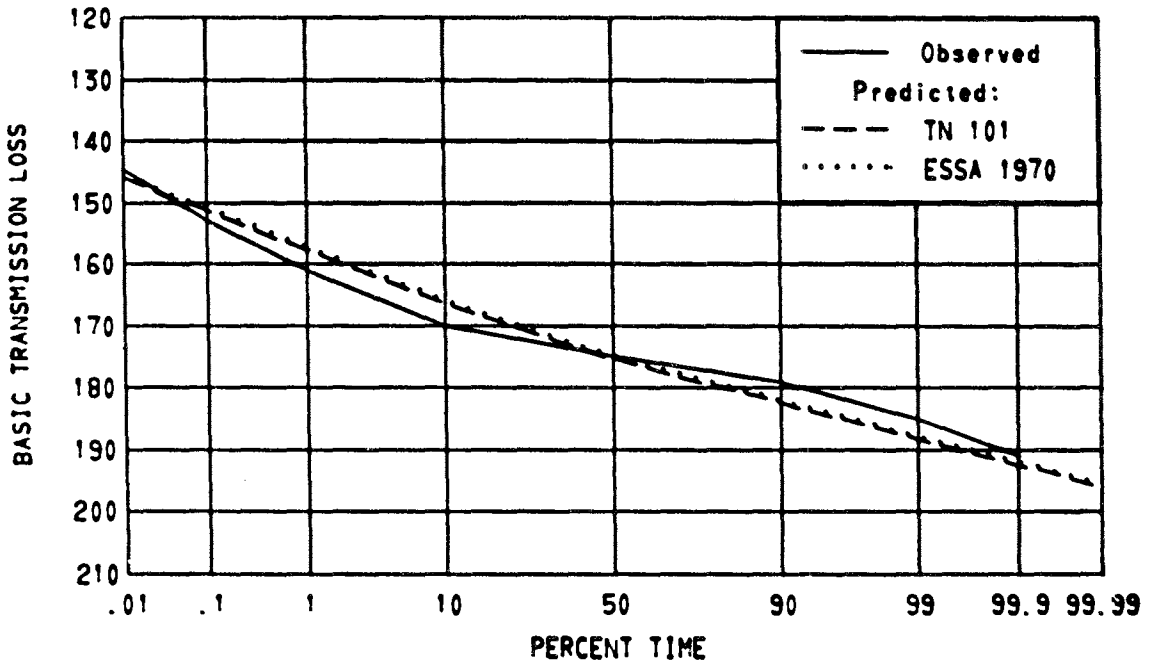
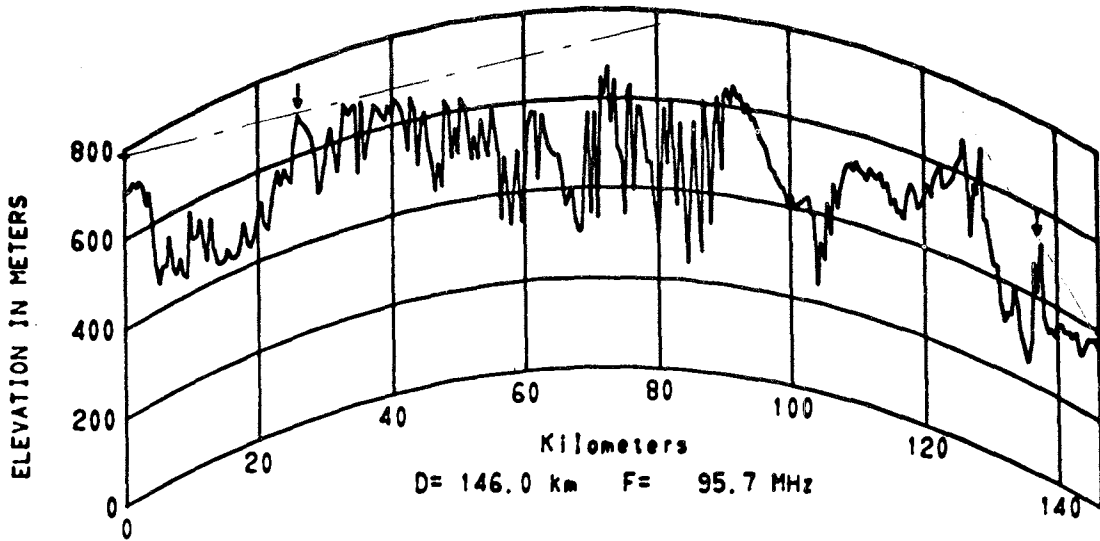


Figure 3.4 Path 41

PATH 5 LINCOLN NEBR - GRAND ISLAND NEBR

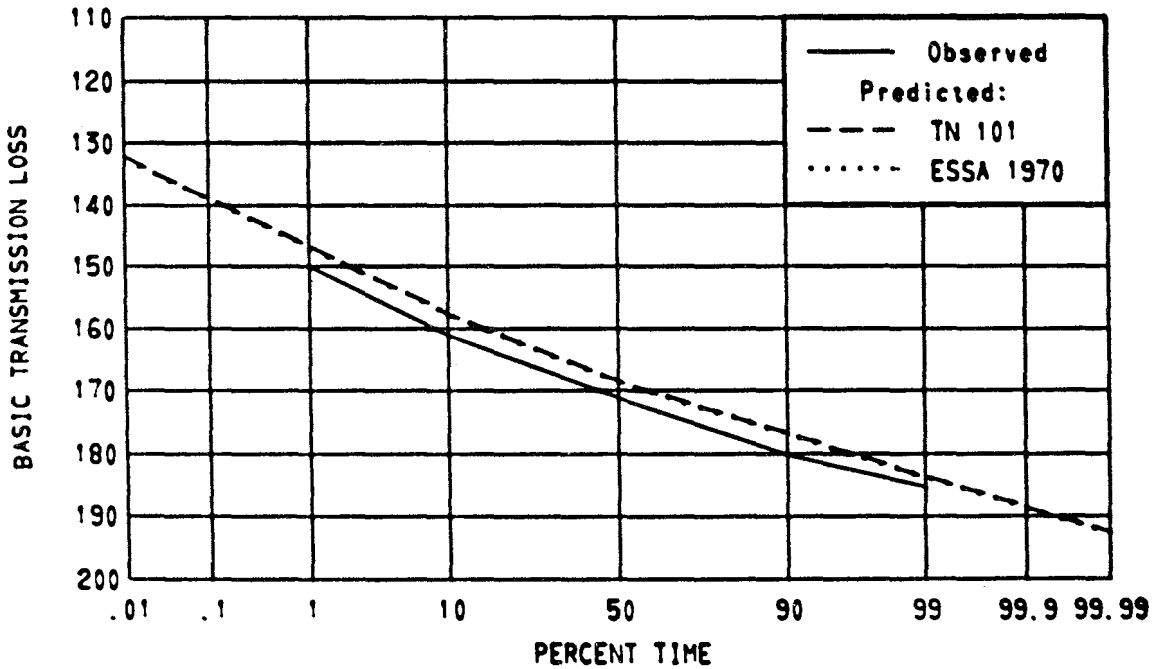
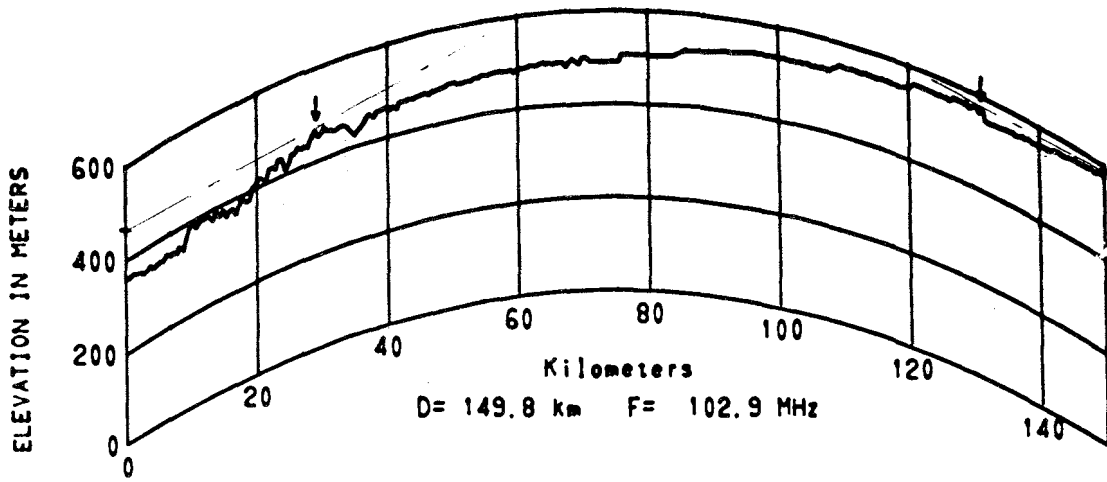


Figure 3.5 Path 5

PATH 3 PITTSBURGH PA - HUDSON OHIO

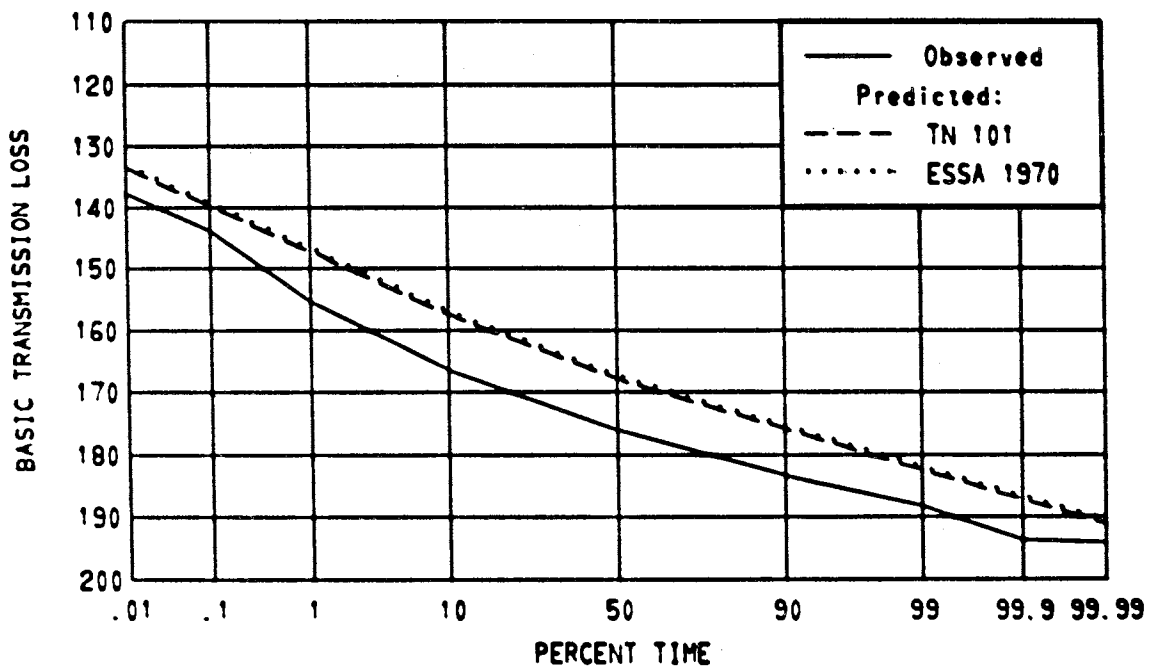
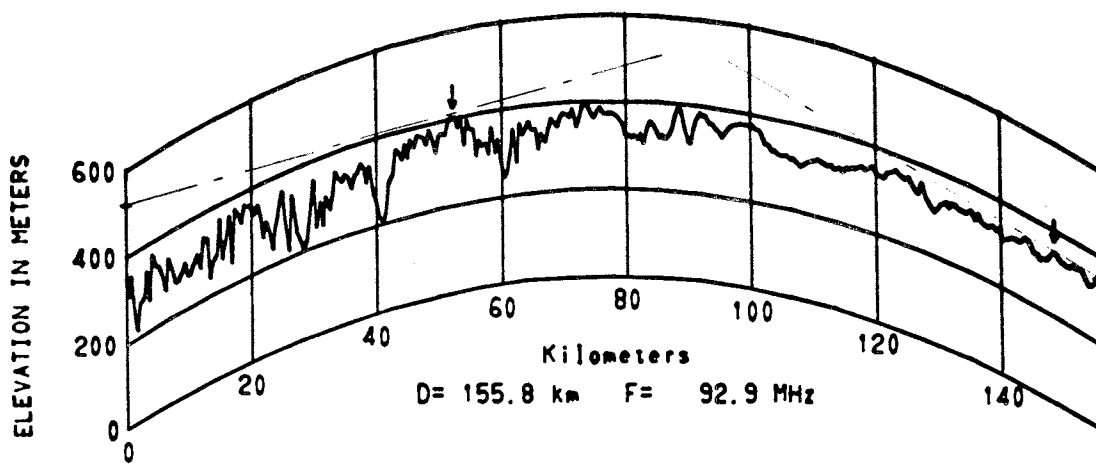


Figure 3.6 Path 3

PATH 35 CHICAGO ILL - ALLEGAN MICH

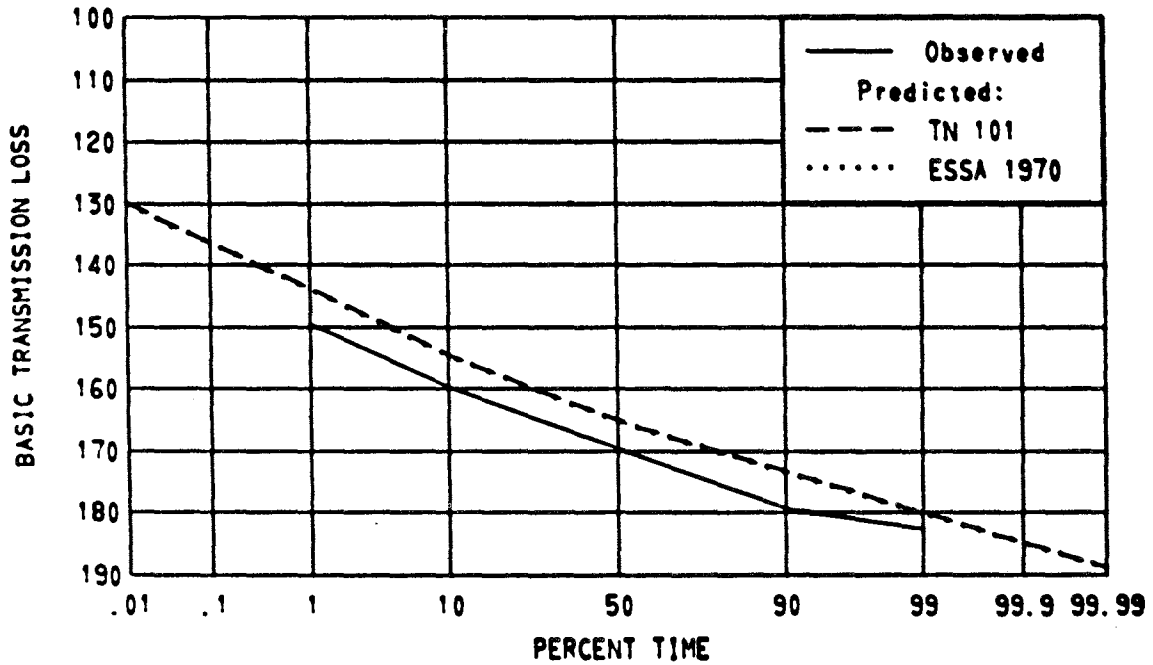
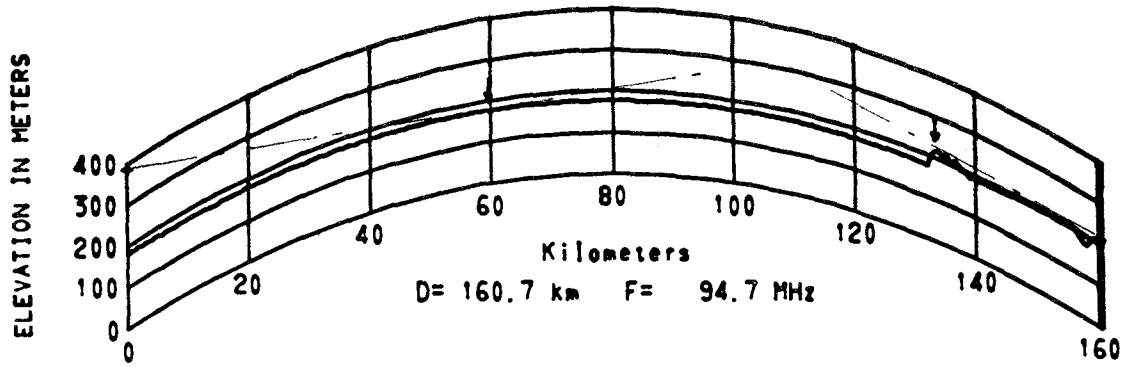


Figure 3.7 Path 35

PATH 52 PHILADELPHIA PA - LAUREL MD

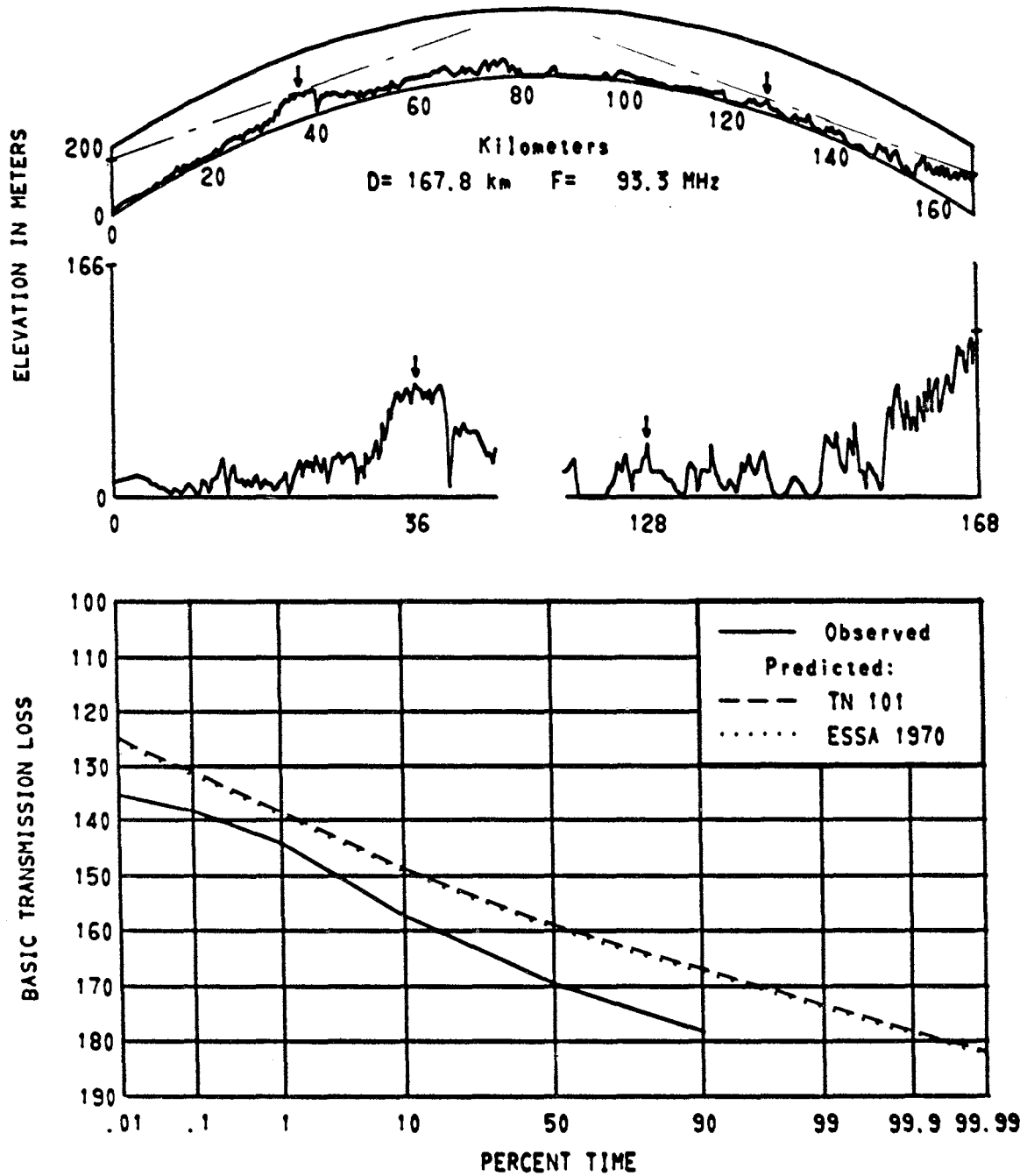


Figure 3.8 Path 52

PATHS 55 223 DETROIT MICH - HUDSON OHIO

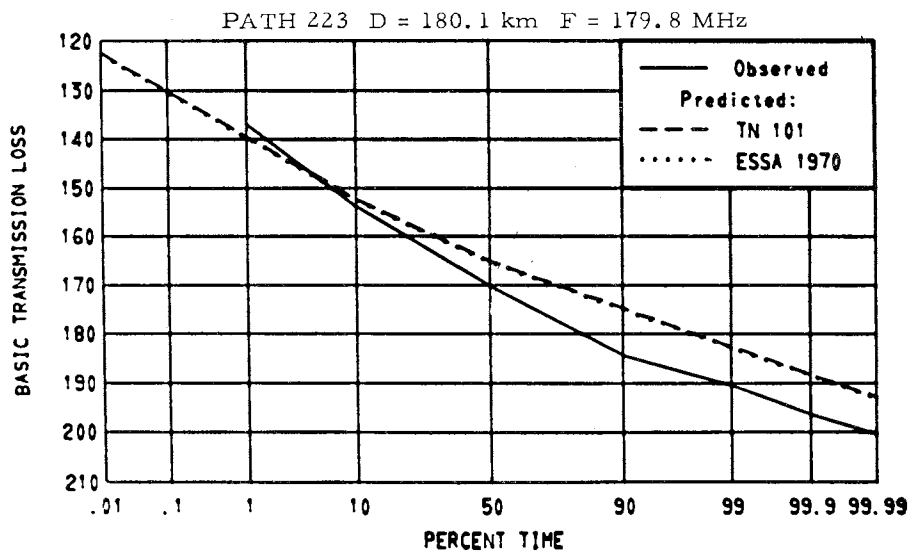
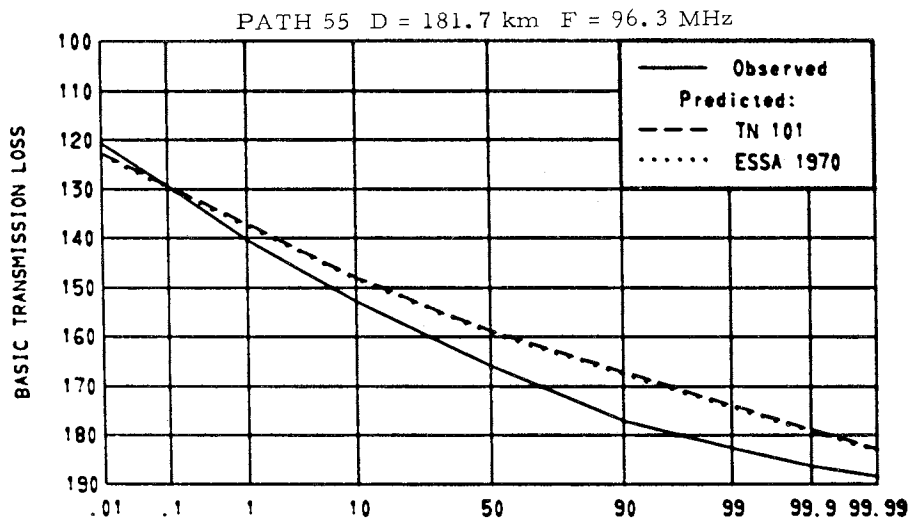
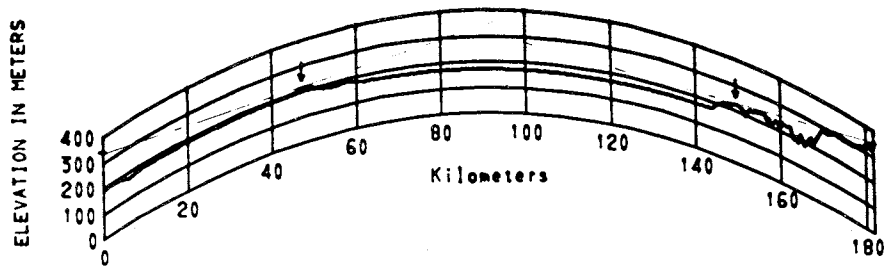


Figure 3.9 Paths 55 223

PATH 54 PITTSBURGH PA - STATE COLLEGE PA

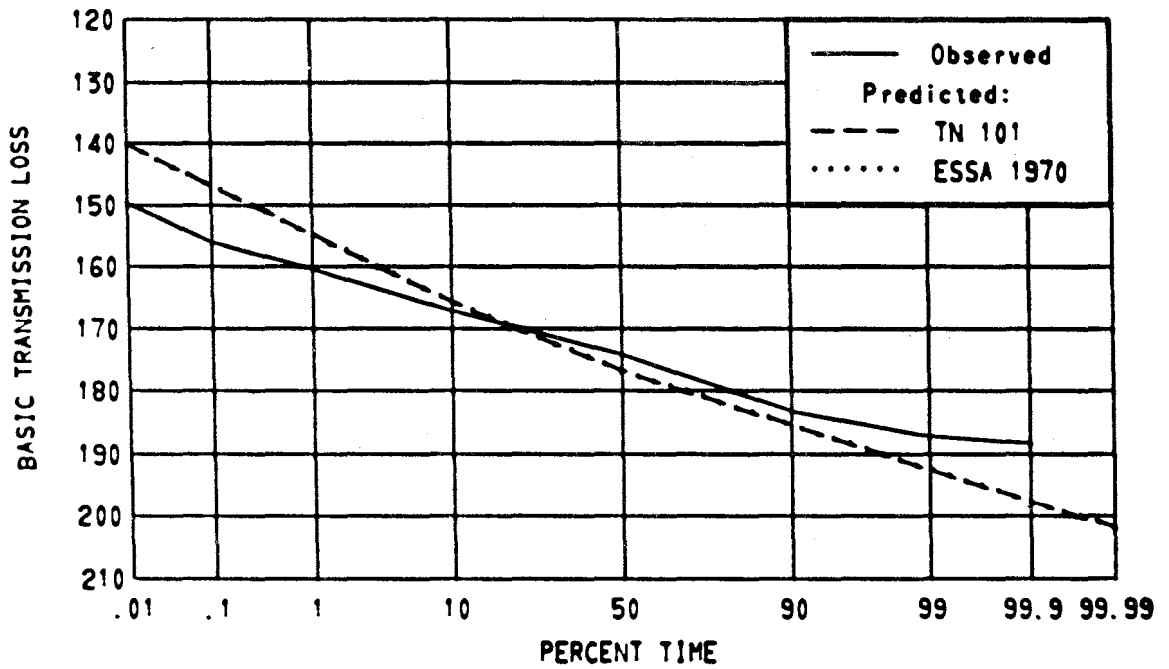
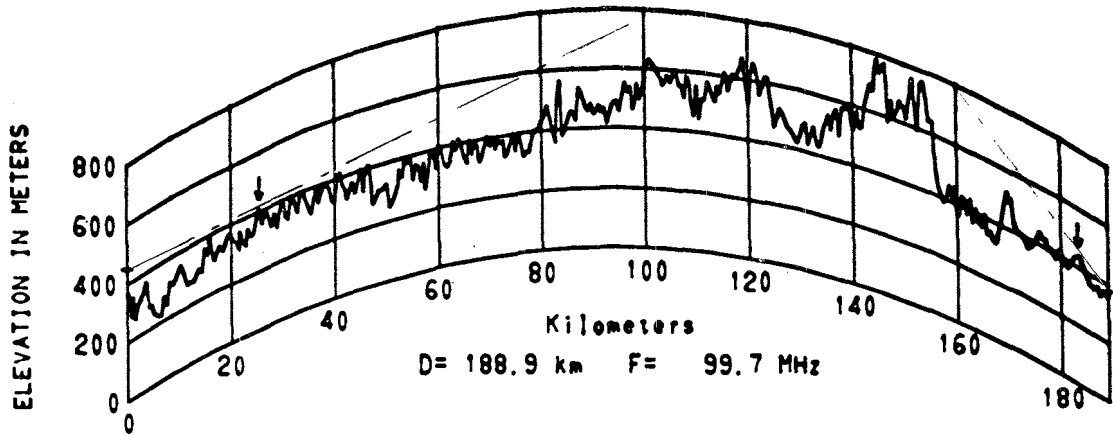


Figure 3.10 Path 54

PATHS 63 64 COLUMBUS OHIO - HUDSON OHIO

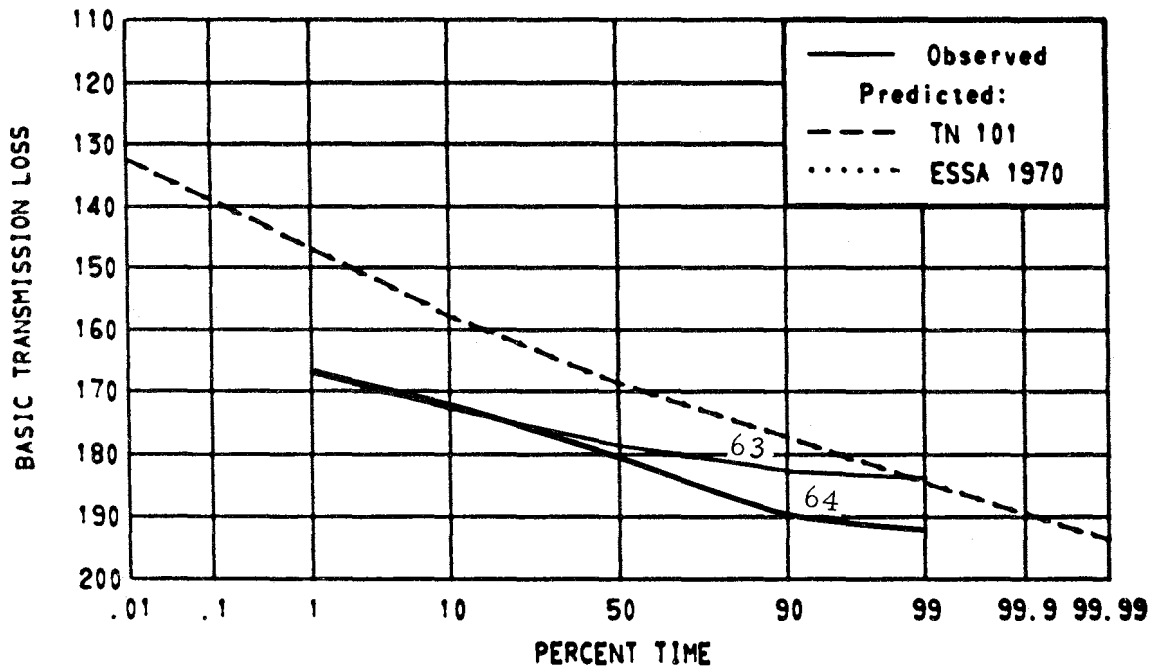
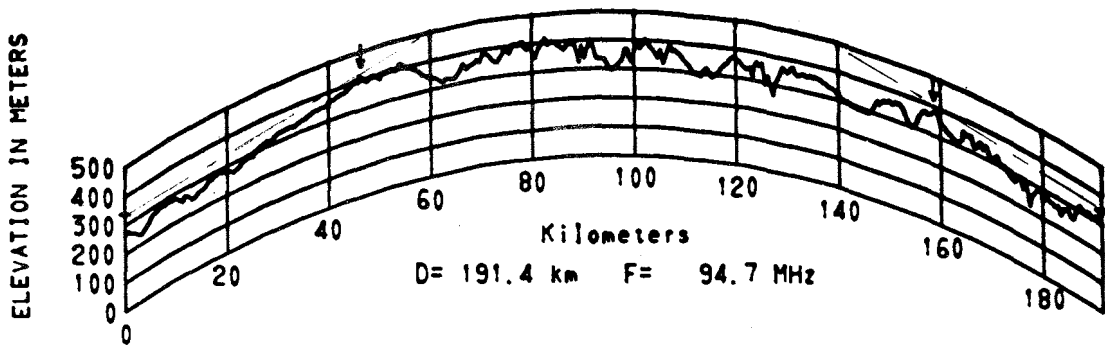


Figure 3.11 Paths 63 64

PATH 29 COLUMBUS OHIO - HUDSON OHIO

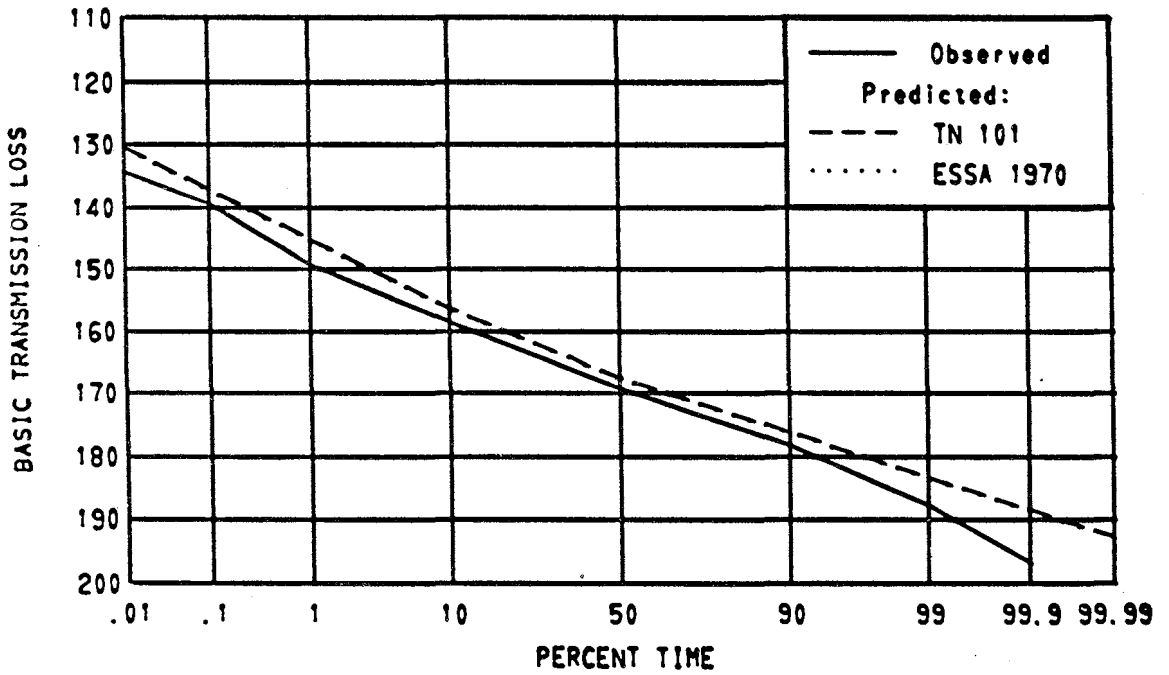
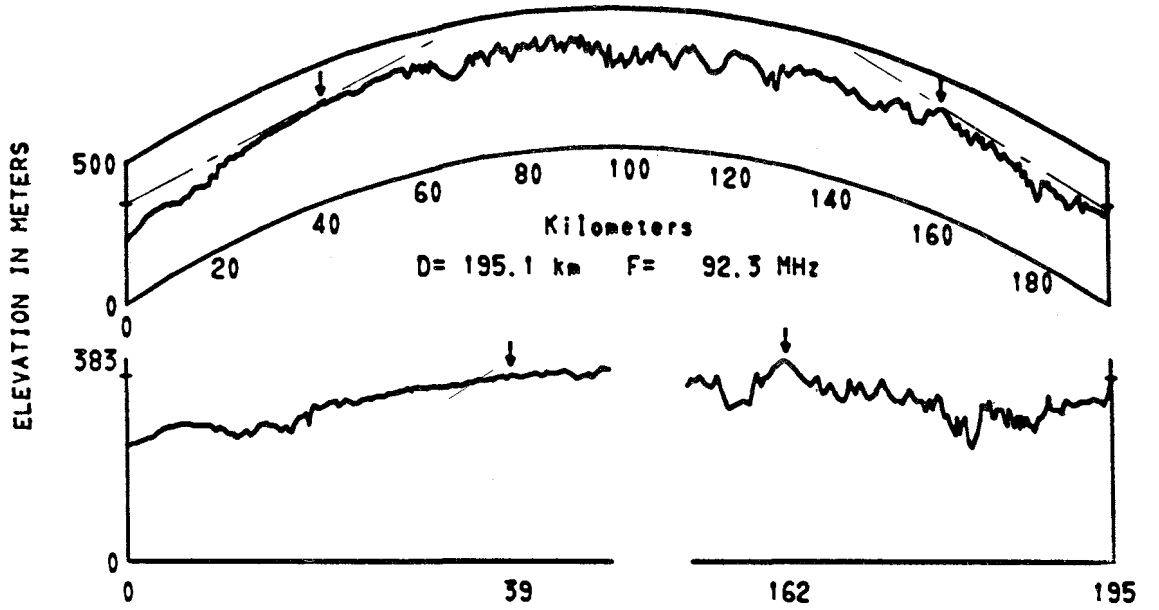


Figure 3.12 Path 29

PATH 1 FRESNO CALIF - LIVERMORE CALIF

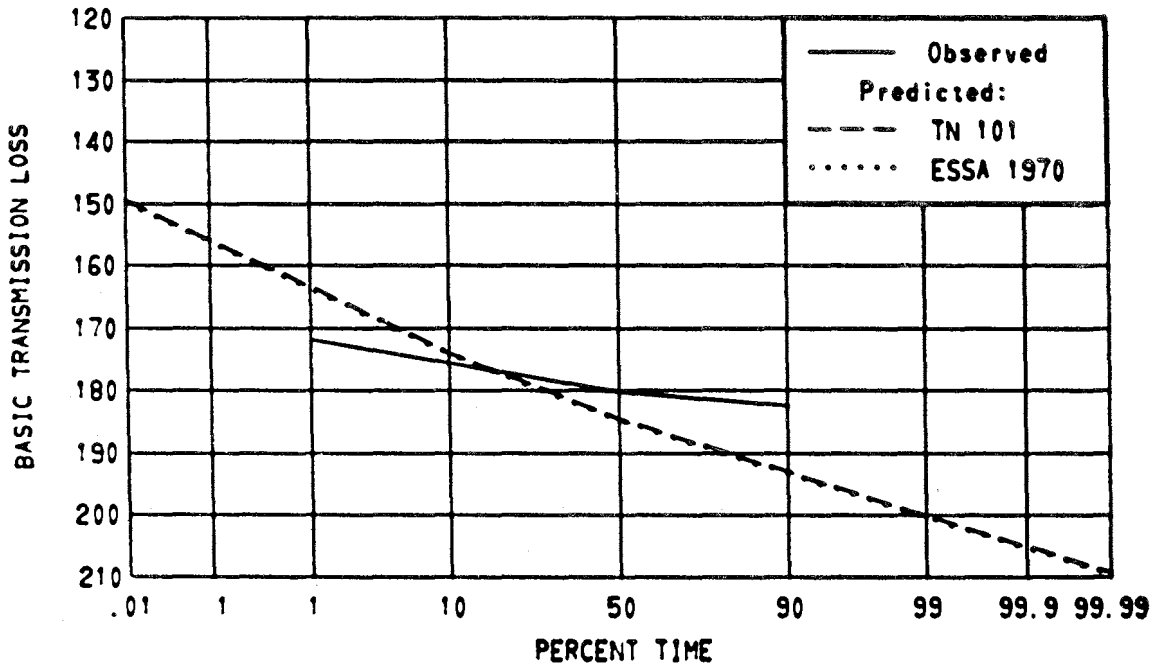
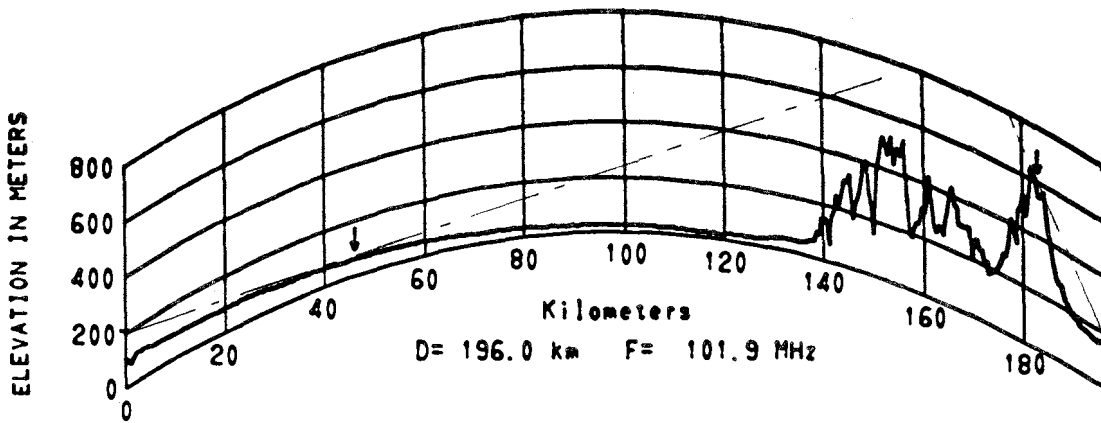


Figure 3.13 Path 1

PATHS 204 244 BIRMINGHAM ALA - POWDER SPGS GA

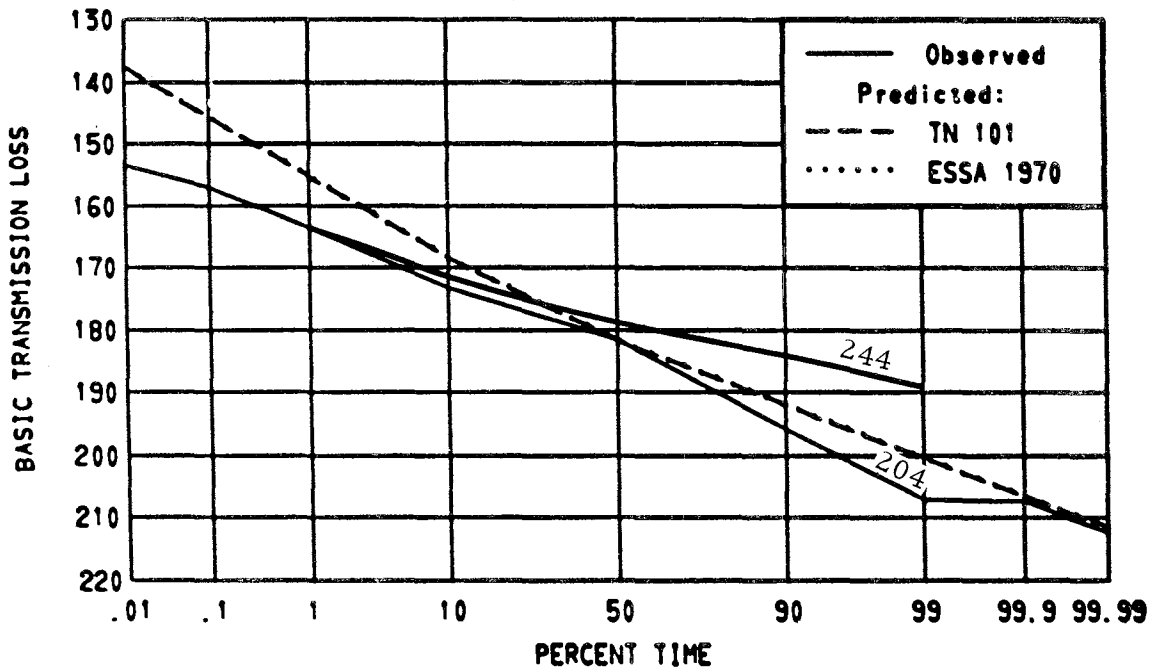
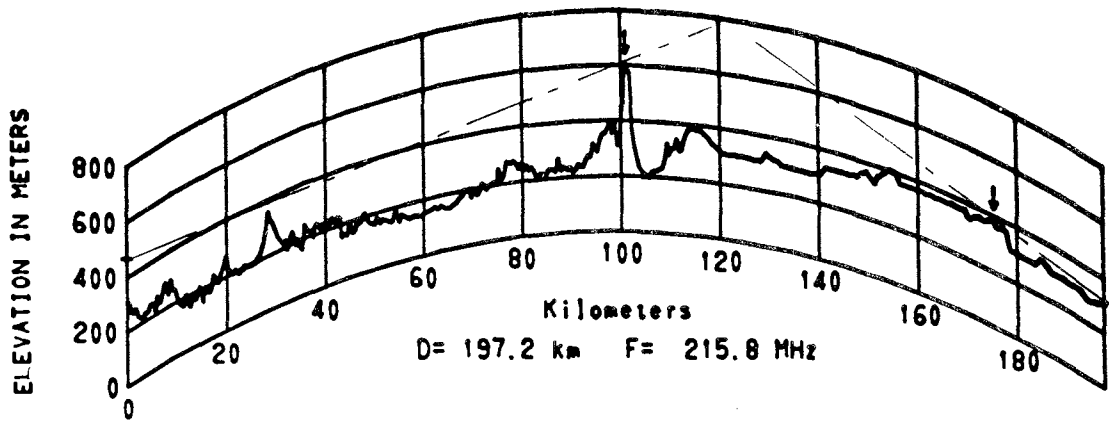
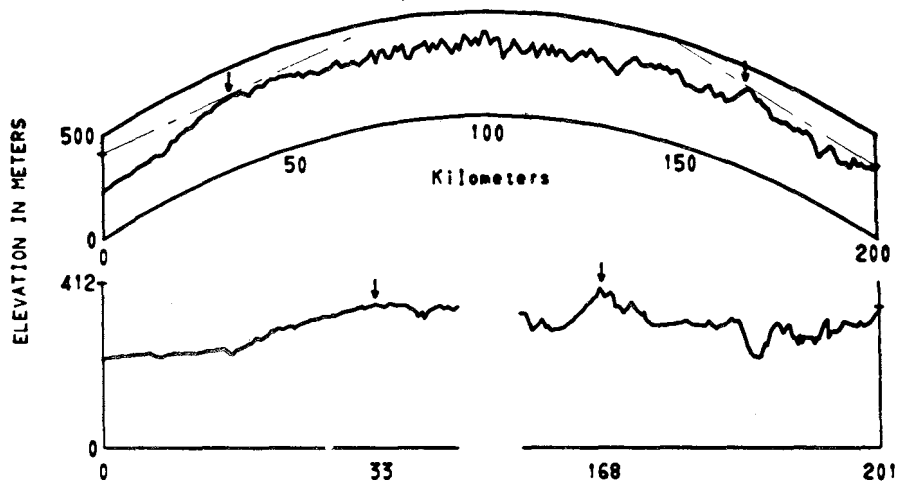
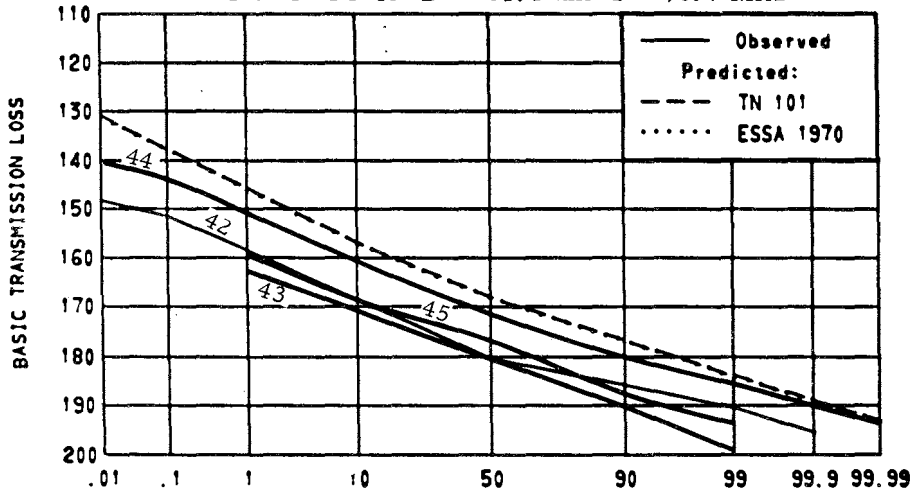


Figure 3.14 Paths 204 244

PATHS 42 TO 49 COLUMBUS OHIO - HUDSON OHIO



PATHS 42 TO 45 D = 201.1 km F = 98.7 MHz



PATHS 46 TO 49 D = 201.1 km F = 98.7 MHz

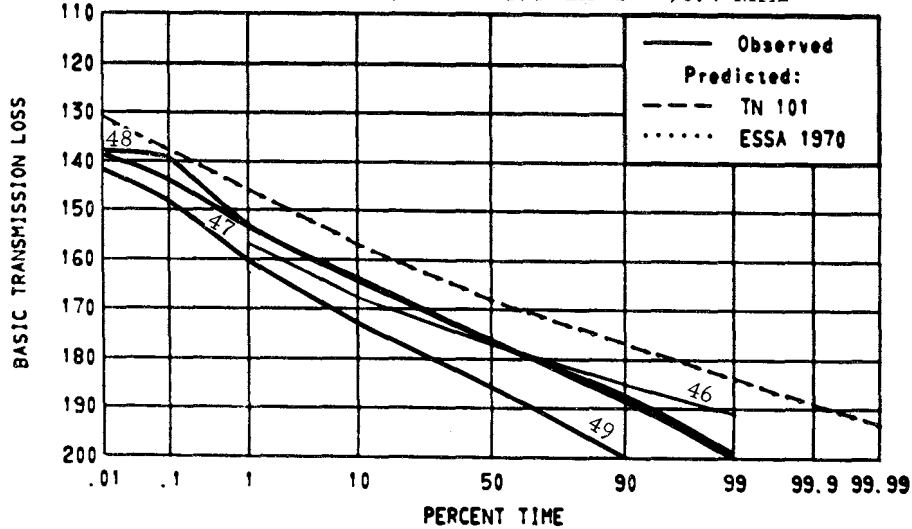


Figure 3.15 Paths 42 to 49

PATH 57 CHICAGO ILL - URBANA ILL

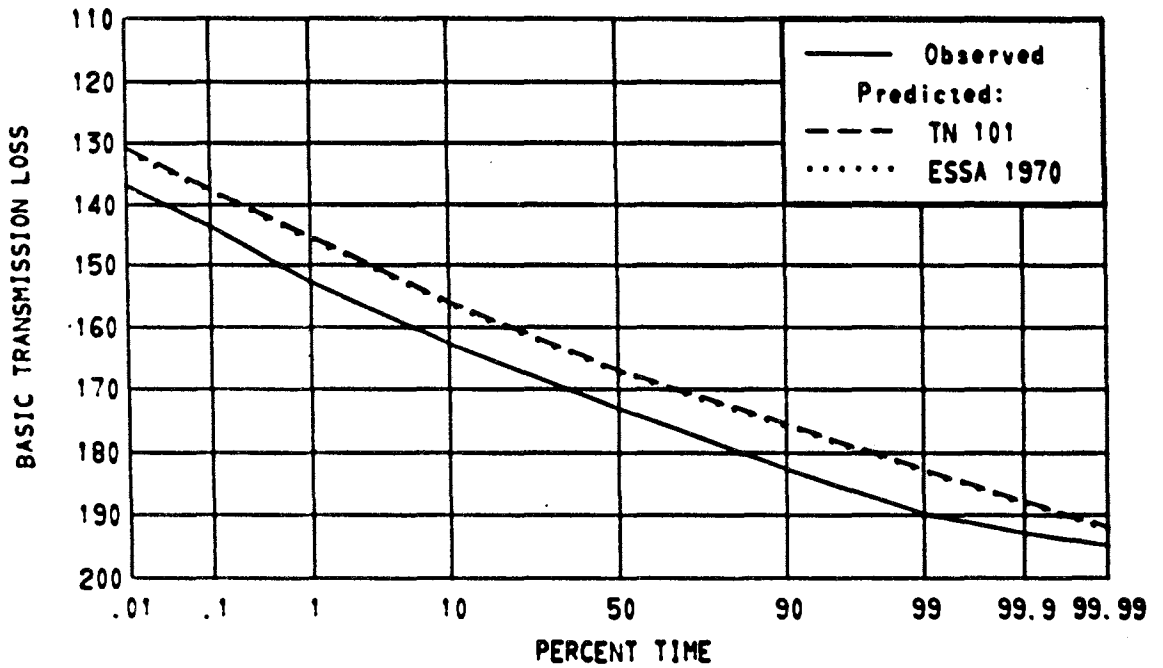
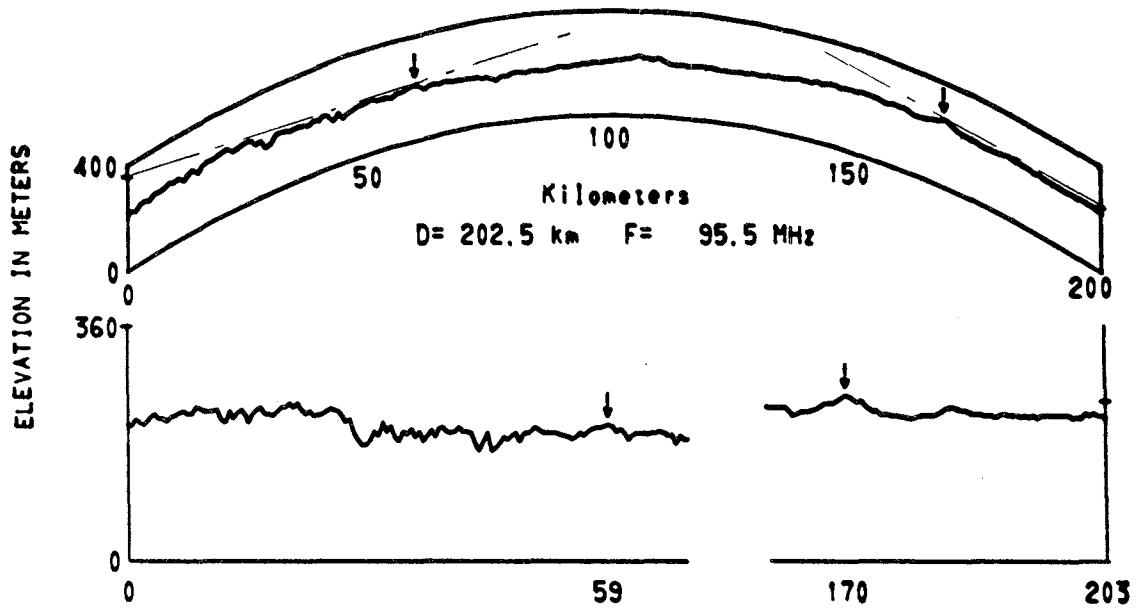


Figure 3.16 Path 57

PATHS 206 210 212 TO 216,219 CHICAGO ILL - URBANA ILL

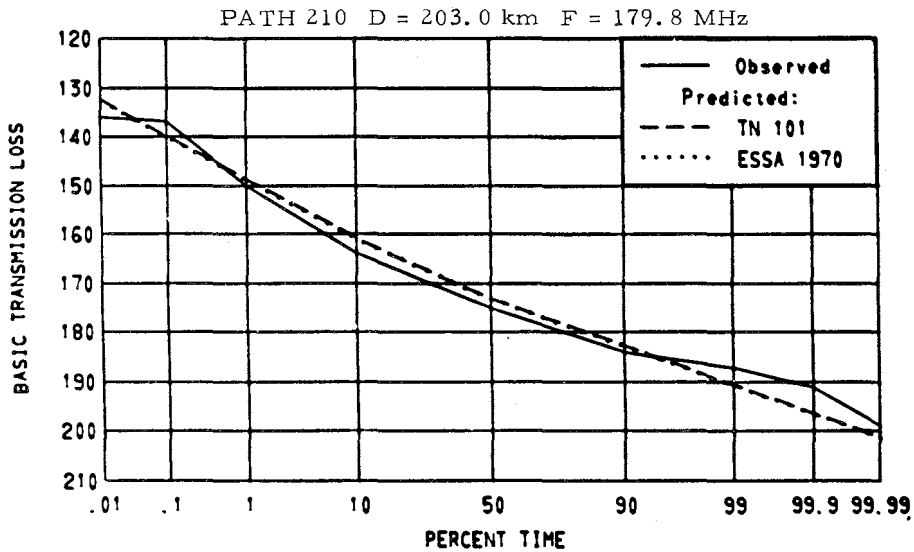
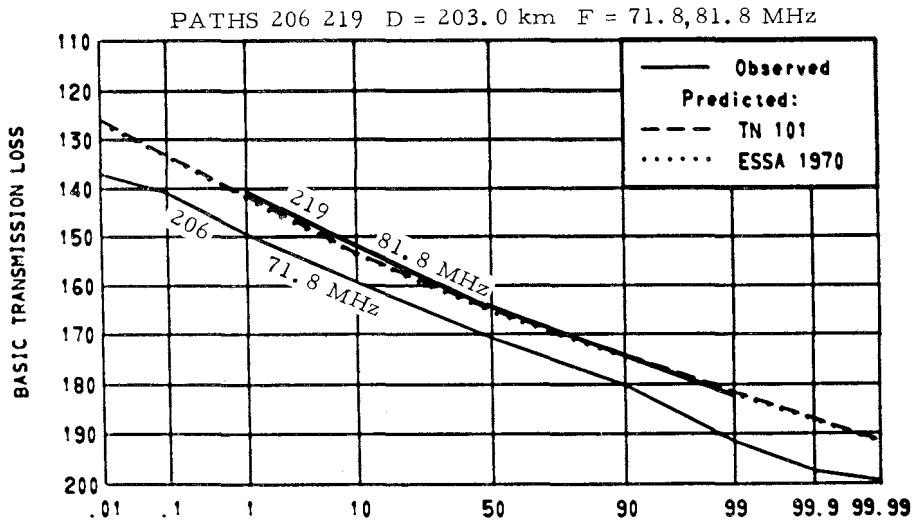
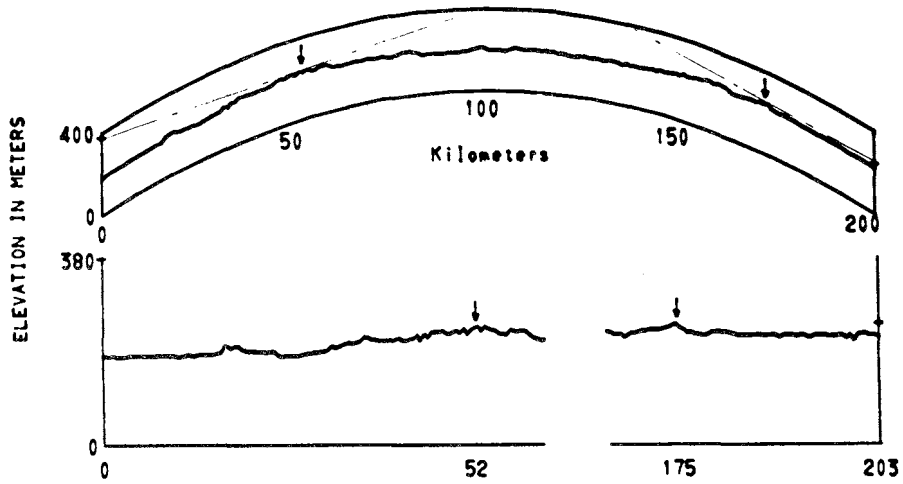
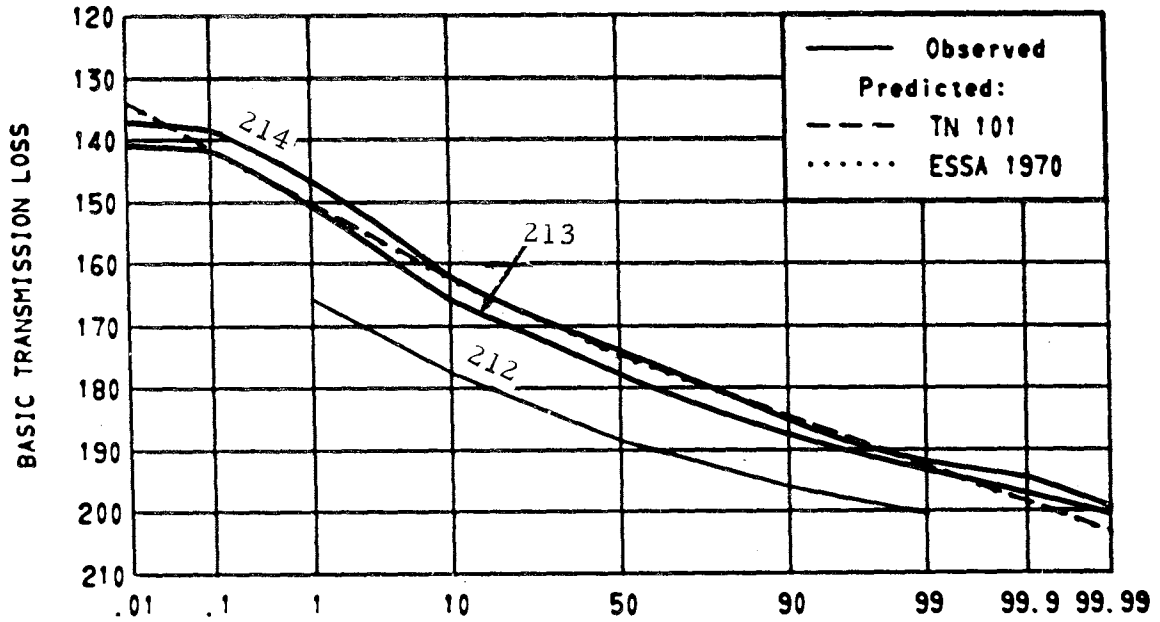


Figure 3.17 Paths 206 210 219

CHICAGO ILL - URBANA ILL

PATHS 212 TO 214 D = 204.1 km F = 191.8 MHz



PATHS 215 216 D = 204.1 km F = 191.8 MHz

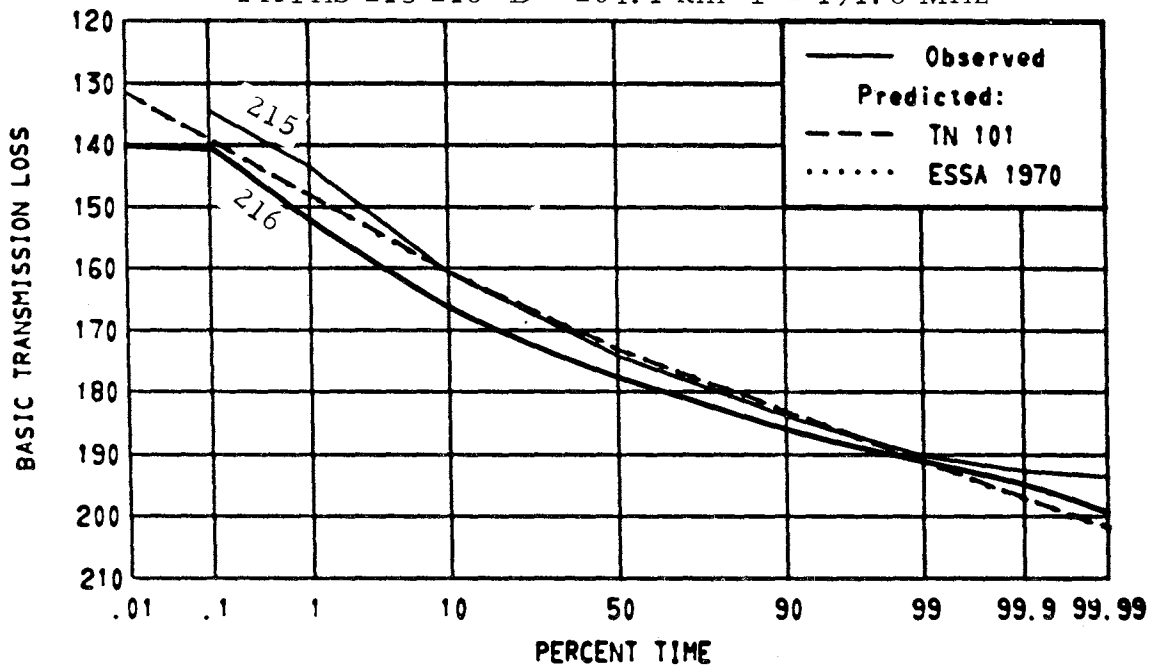


Figure 3.18 Paths 212 to 216

PATH 28 ANDERSON S C - POWDER SPRINGS GA

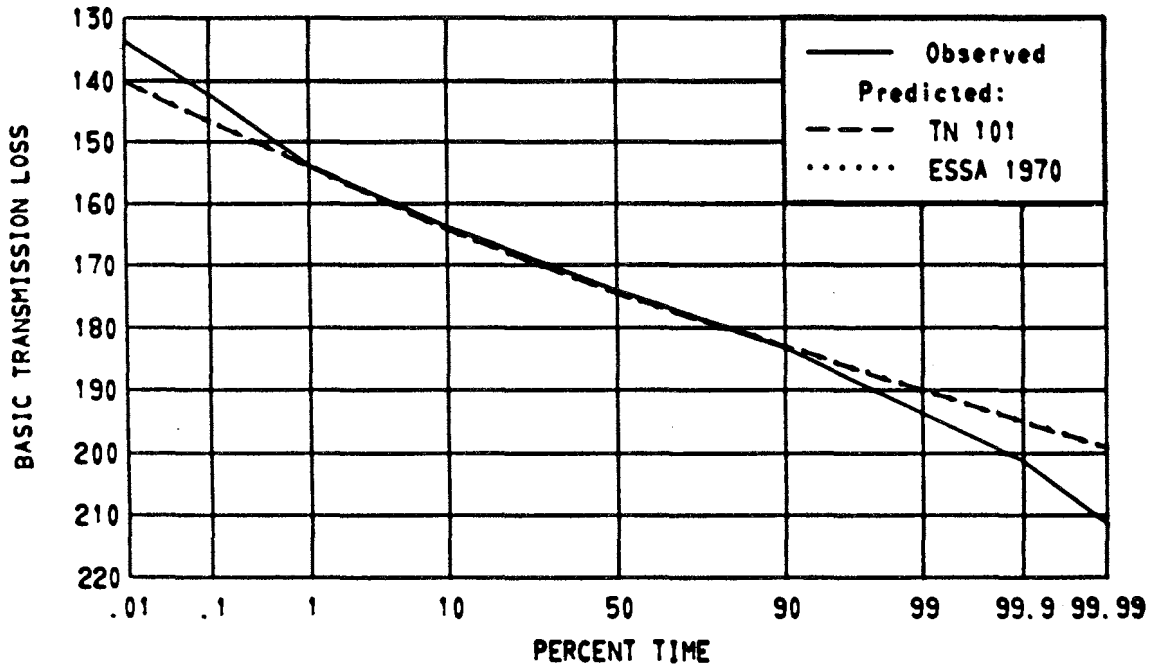
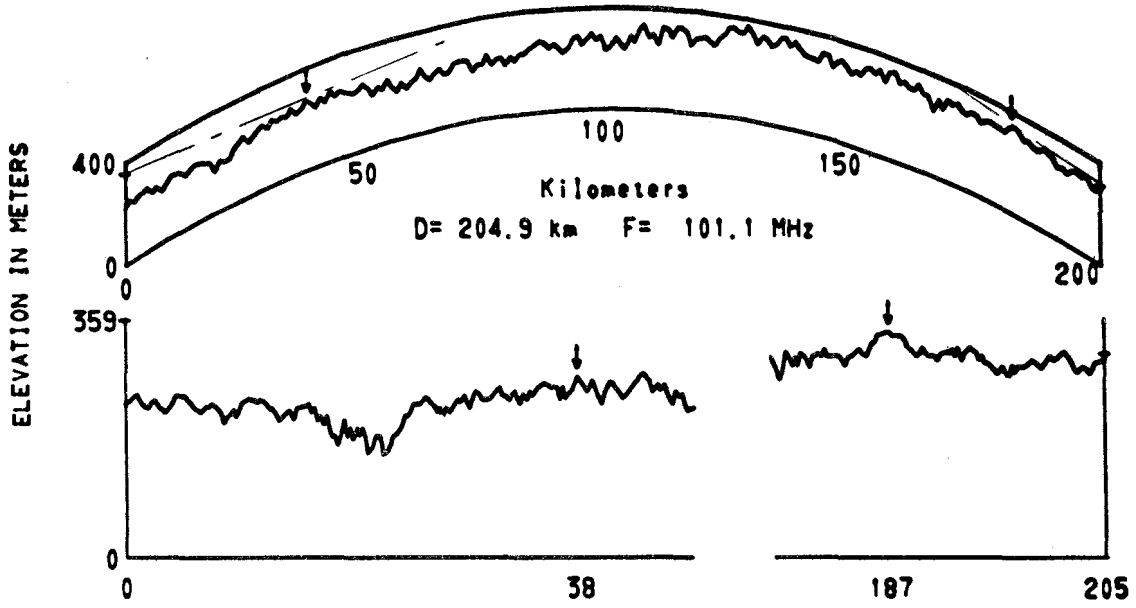
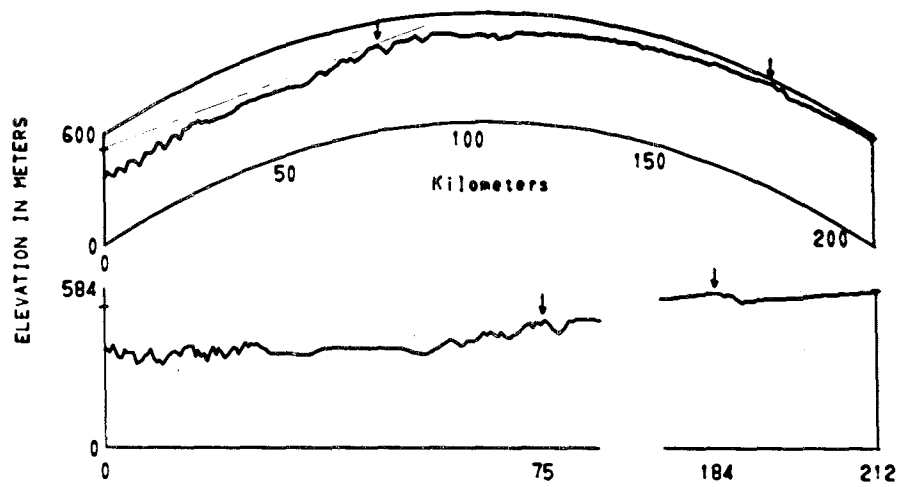
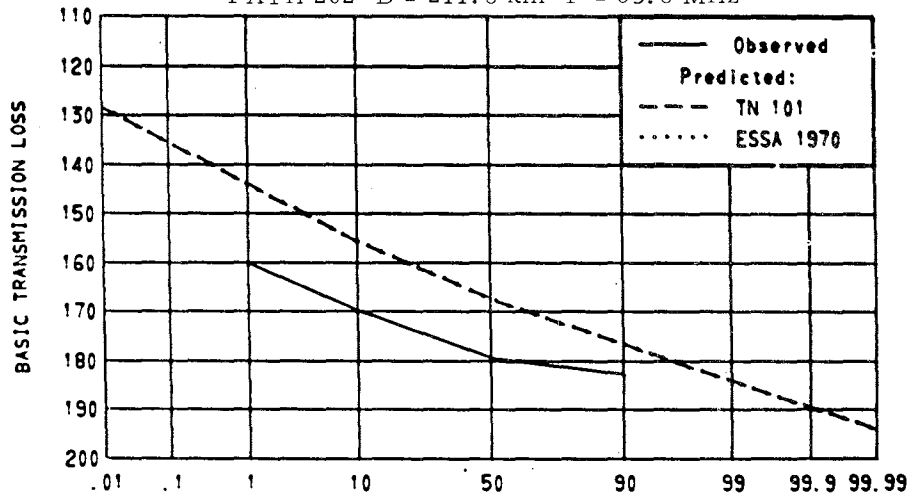


Figure 3.19 Path 28

PATHS 202 222 OMAHA NEBR - GRAND ISLAND NEBR



PATH 202 D = 211.8 km F = 65.8 MHz



PATH 222 D = 210.7 km F = 87.8 MHz

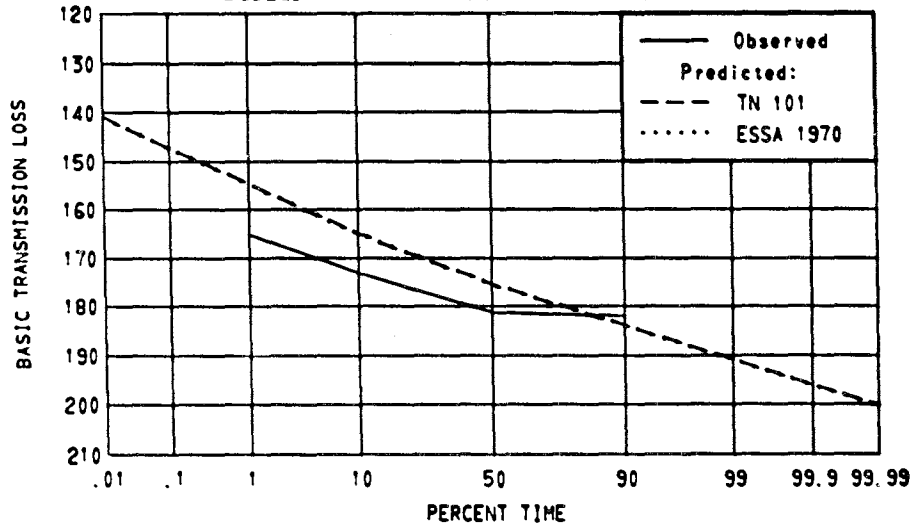
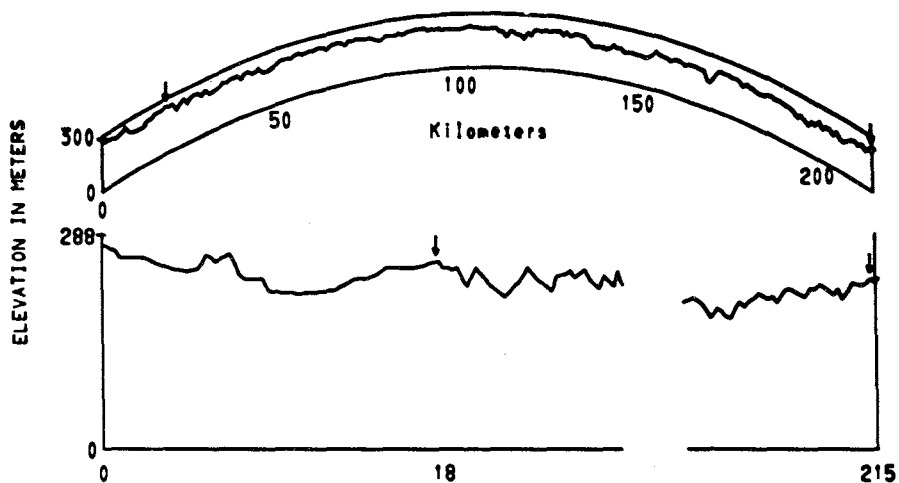
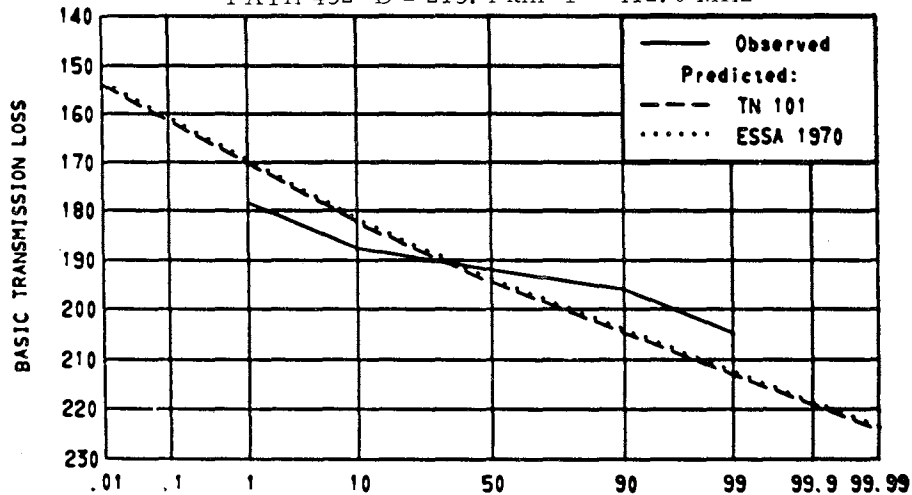


Figure 3.20 Paths 202 222

PATHS 452 TO 454 CEDAR RAPIDS IOWA - QUINCY ILL



PATH 452 D = 215.4 km F = 412.0 MHz



PATHS 453 454 D = 215.4 km F = 418.0 MHz

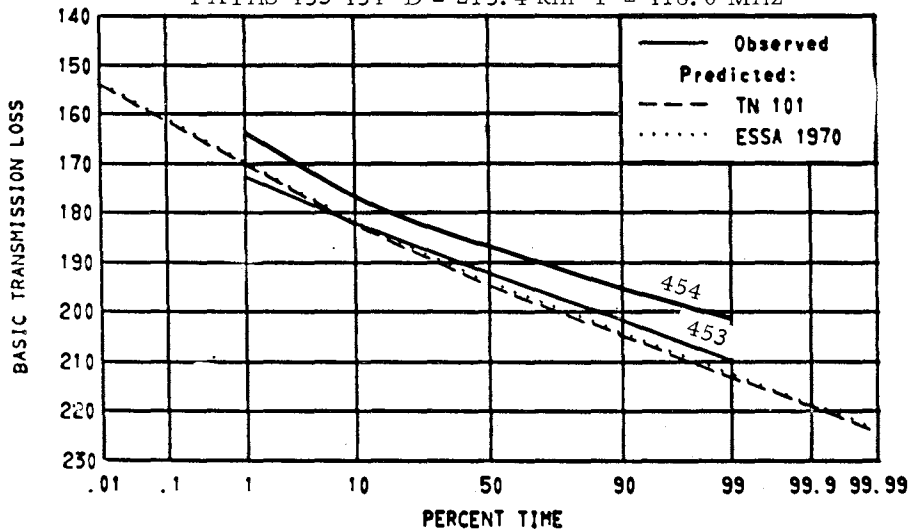


Figure 3.21 Paths 452 to 454

PATHS 457 TO 462 CEDAR RAPIDS IOWA - QUINCY ILL

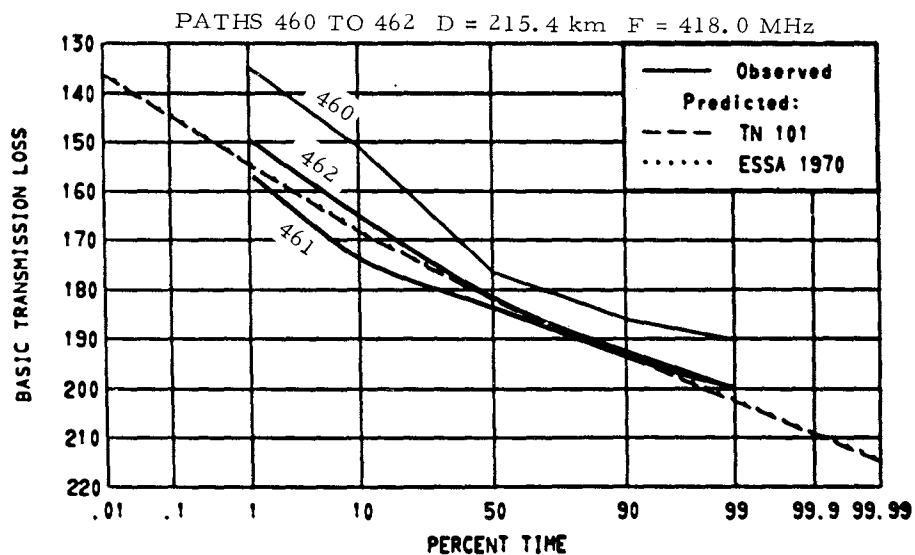
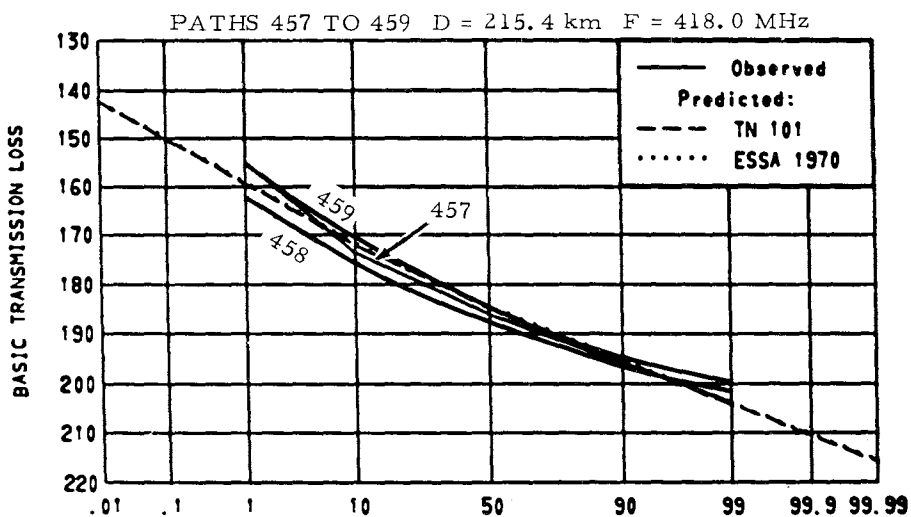
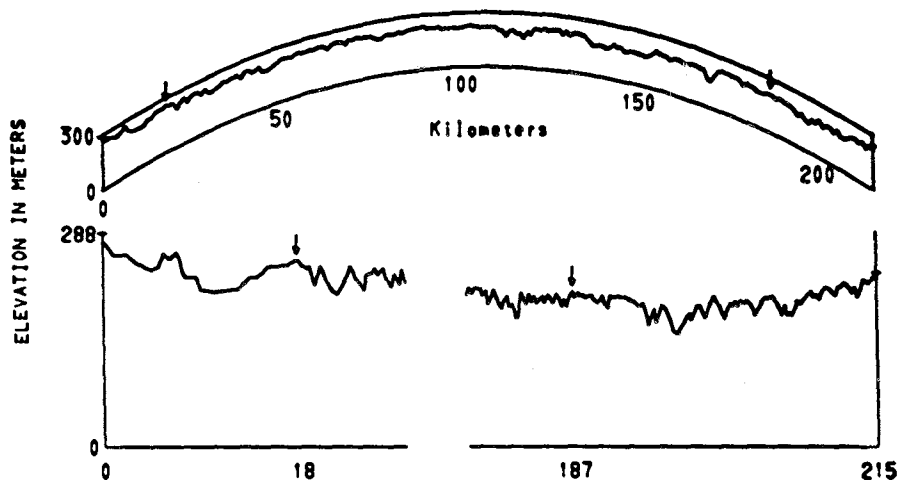


Figure 3.22 Paths 457 to 462

PATH 62 WASHINGTON D C - STATE COLLEGE PA

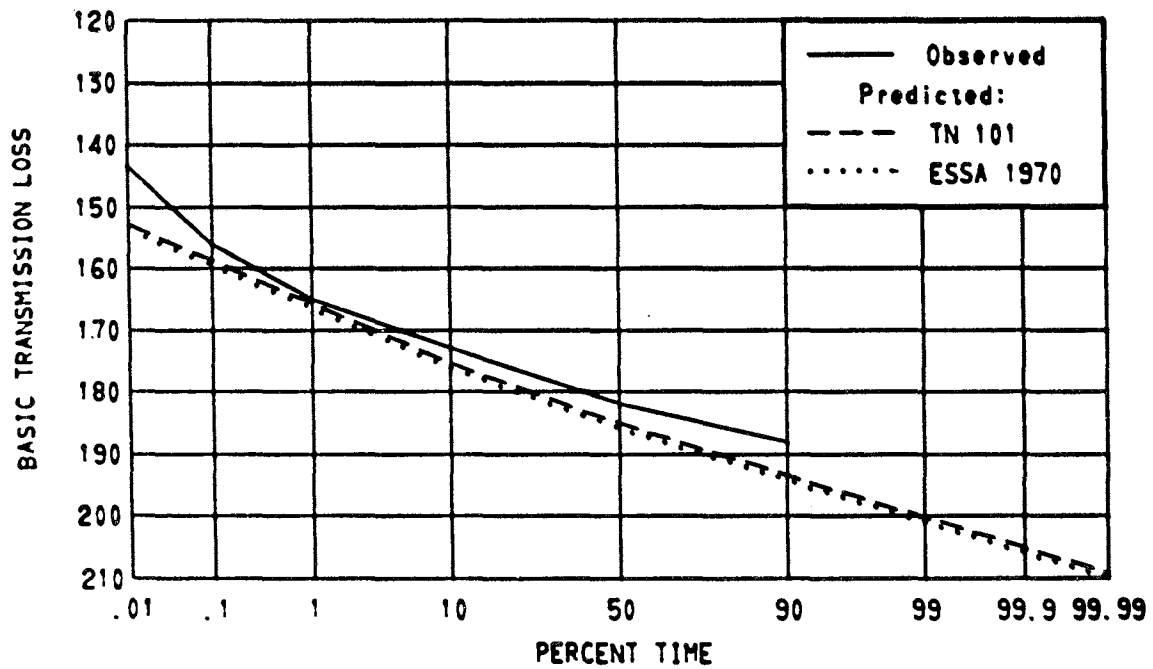
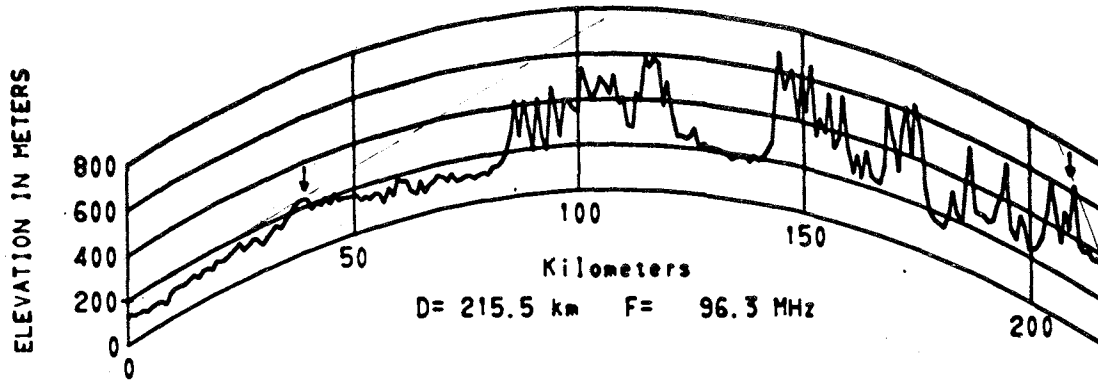


Figure 3.23 Path 62

PATH 61 ARLINGTON VA - STATE COLLEGE PA

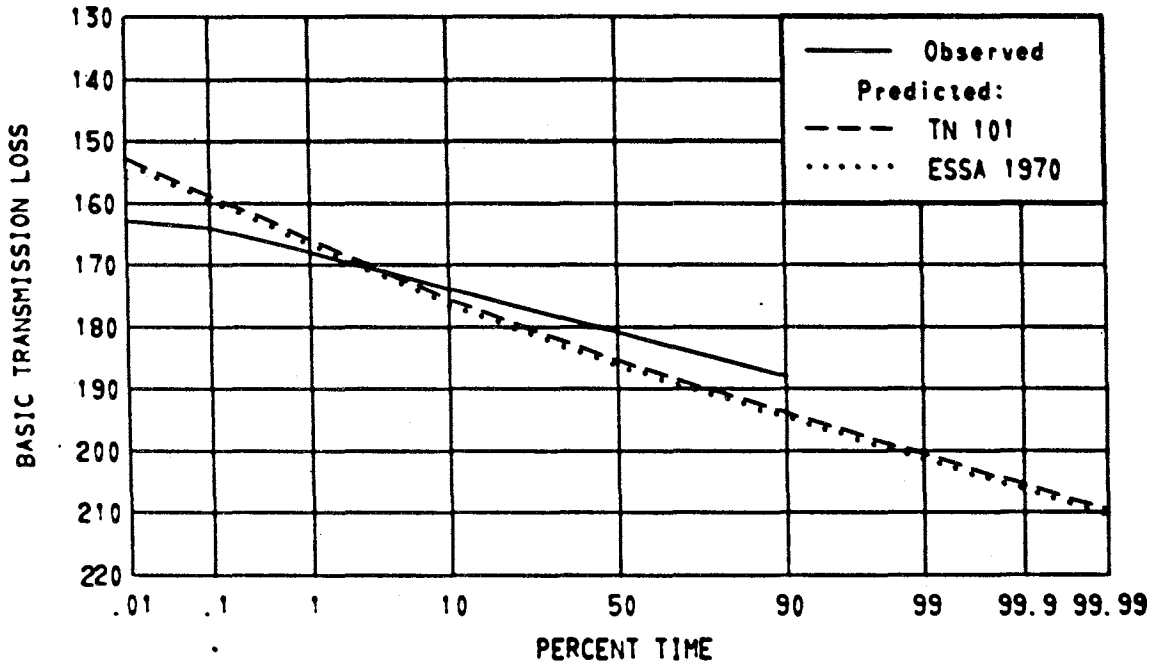
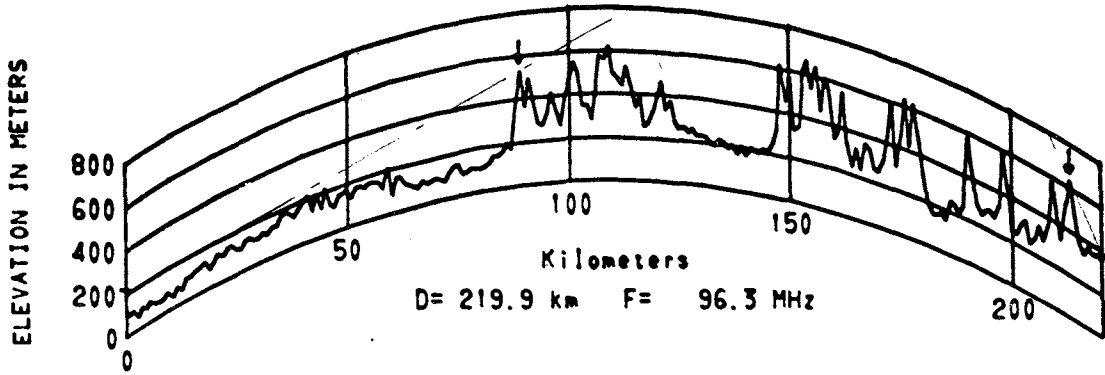


Figure 3.24 Path 61

PATH 31 COLUMBUS IND - URBANA ILL

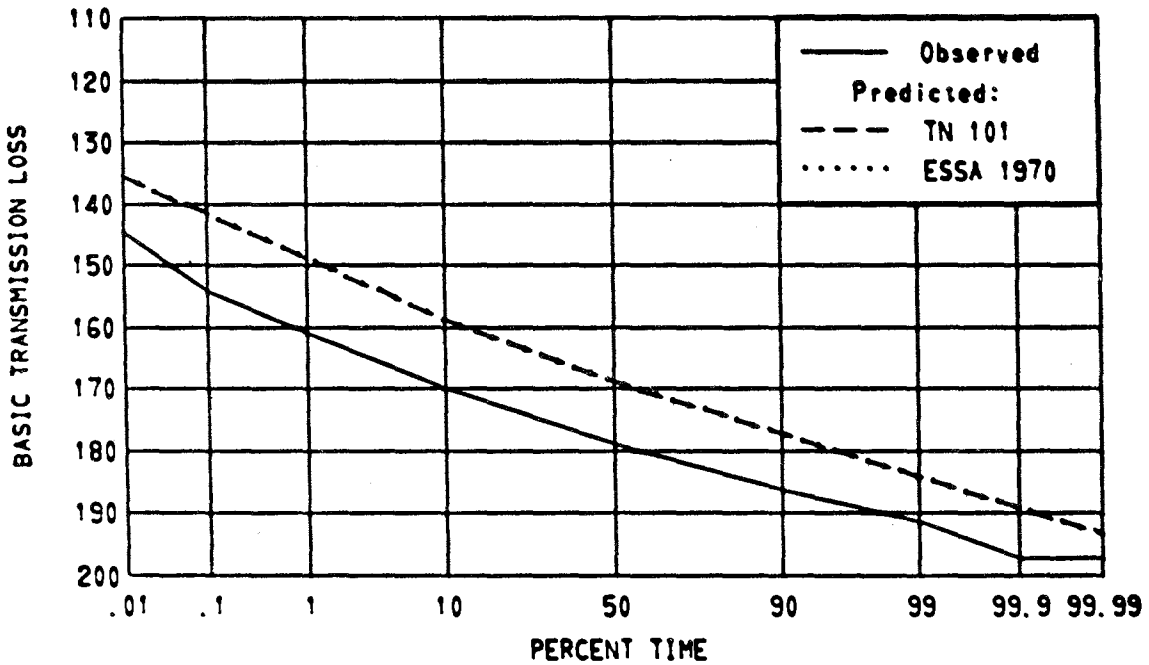
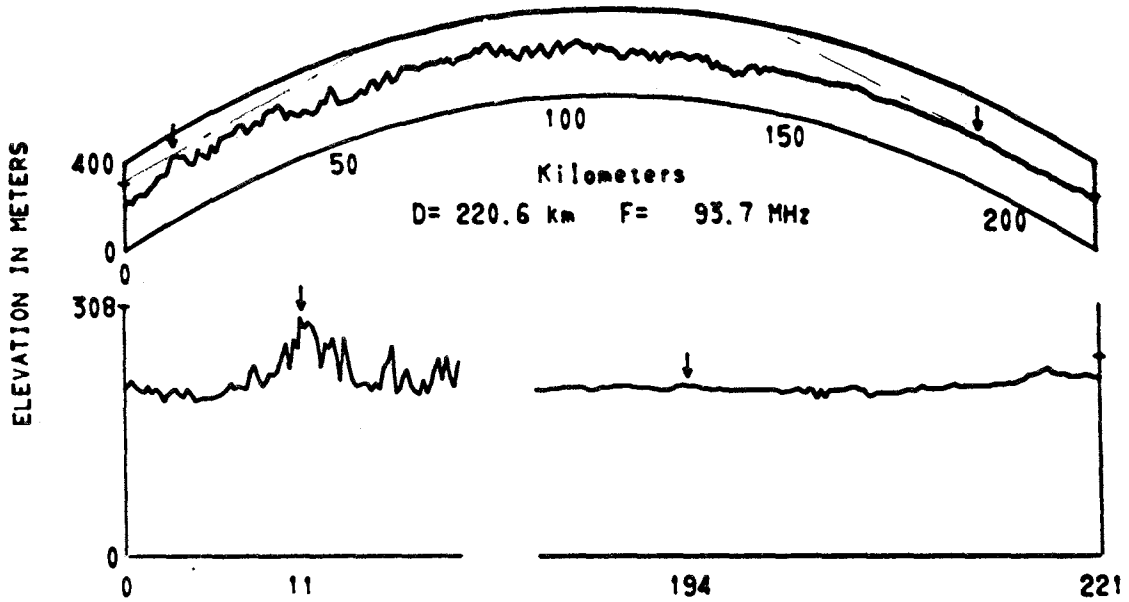


Figure 3.25 Path 31

PATH 17 CHICO CALIF - LIVERMORE CALIF

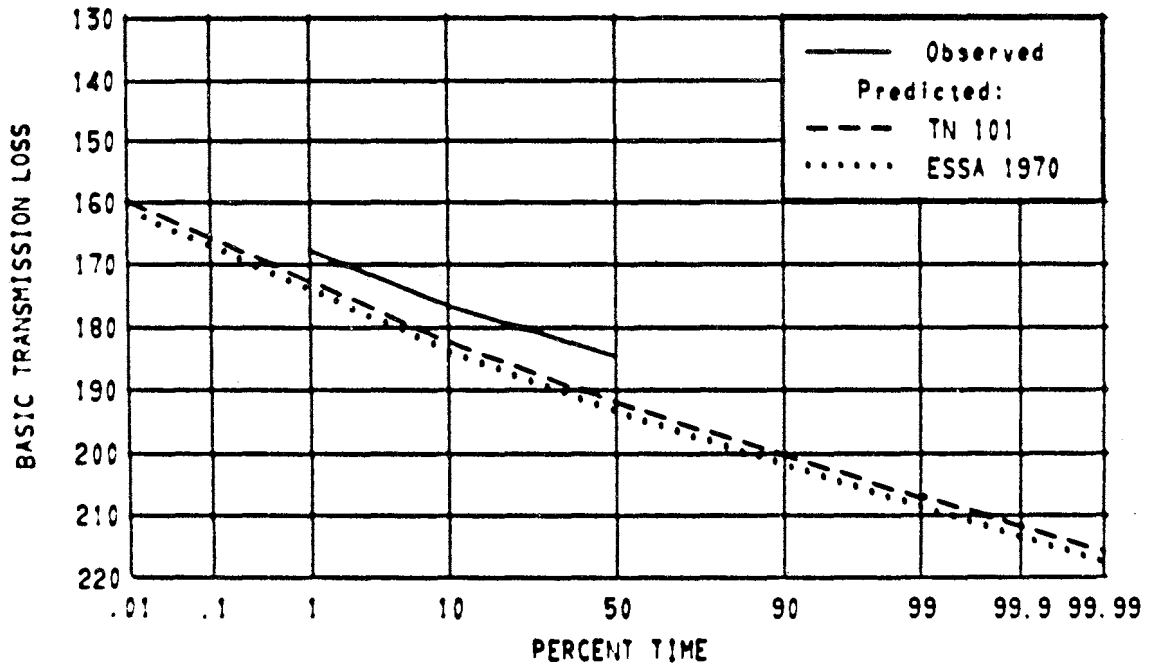
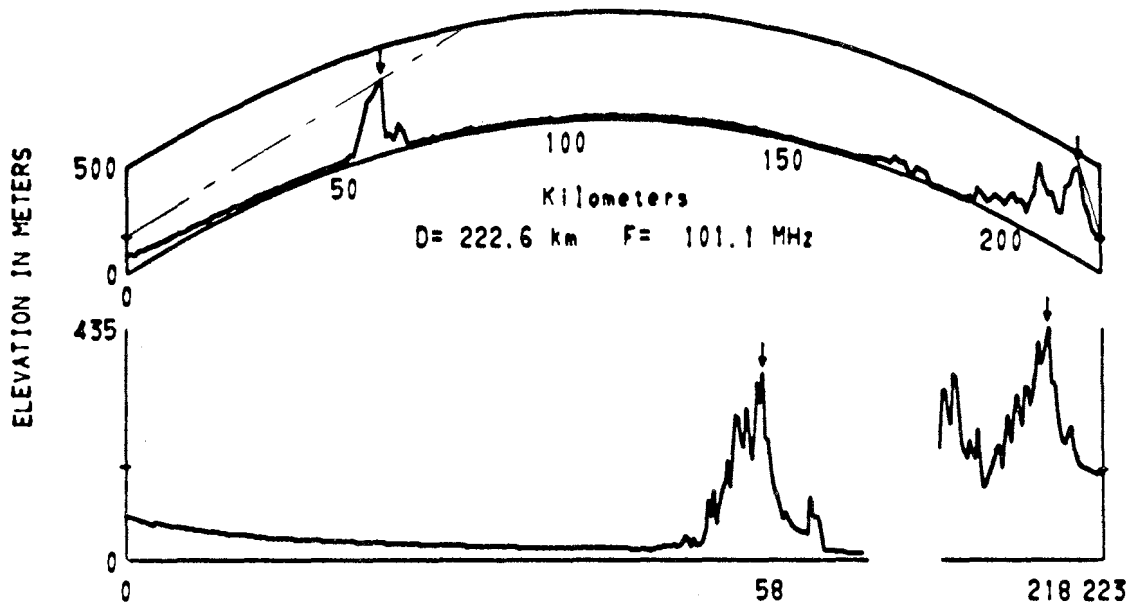


Figure 3.26 Path 17

PATH 33 DETROIT MICH - ALLEGAN MICH

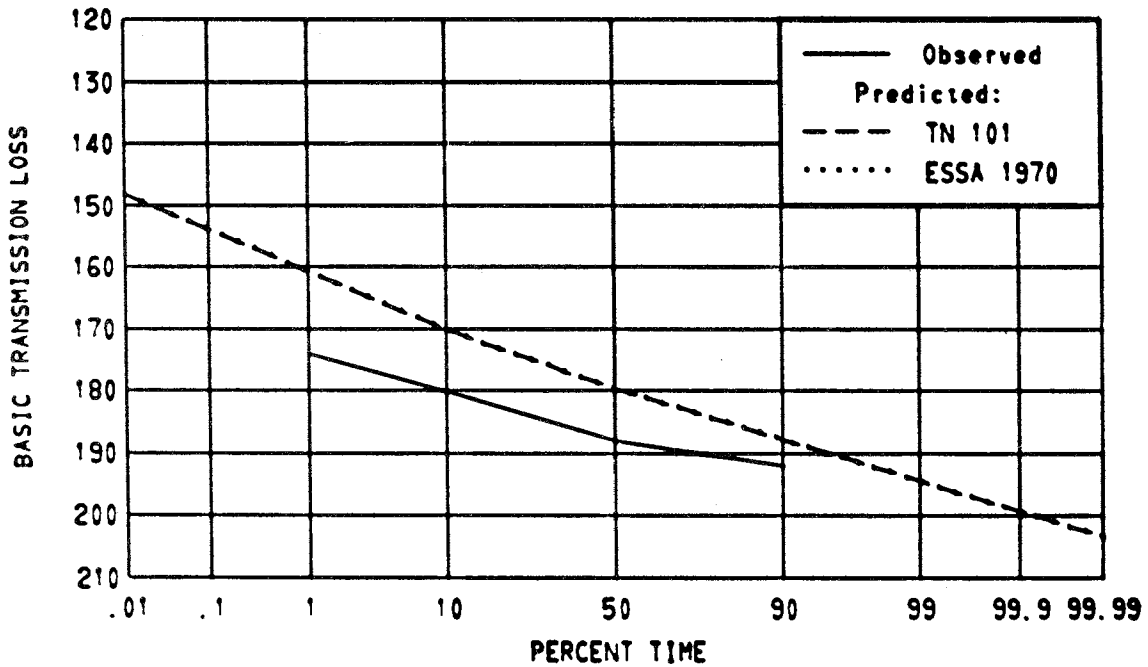
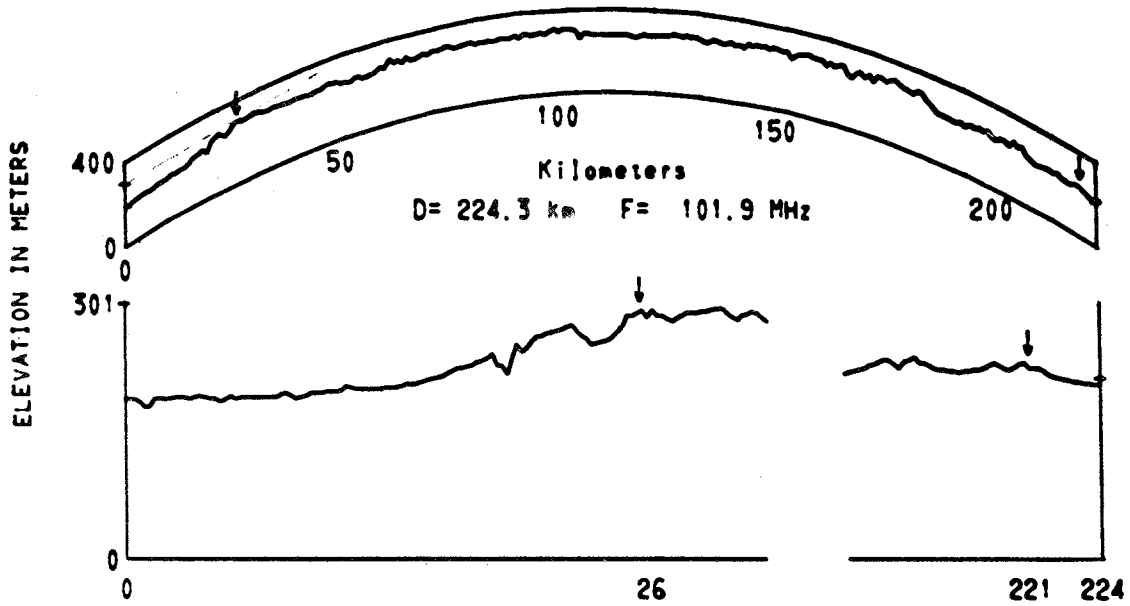


Figure 3.27 Path 33

PATH 36 EASTON PA - STATE COLLEGE PA

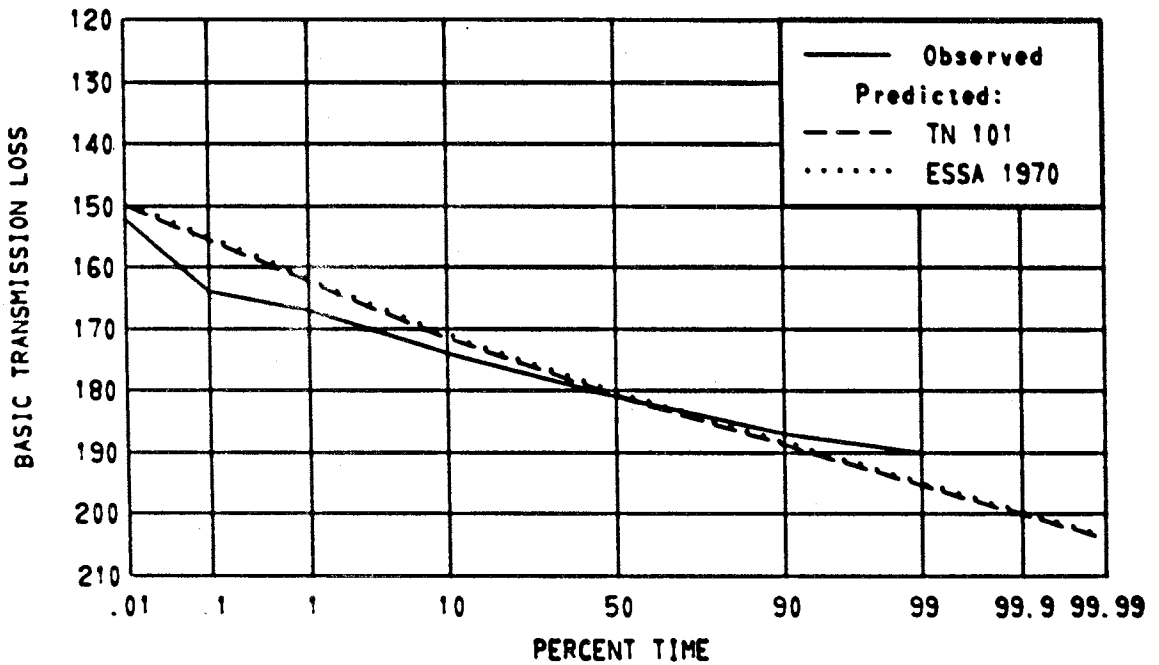
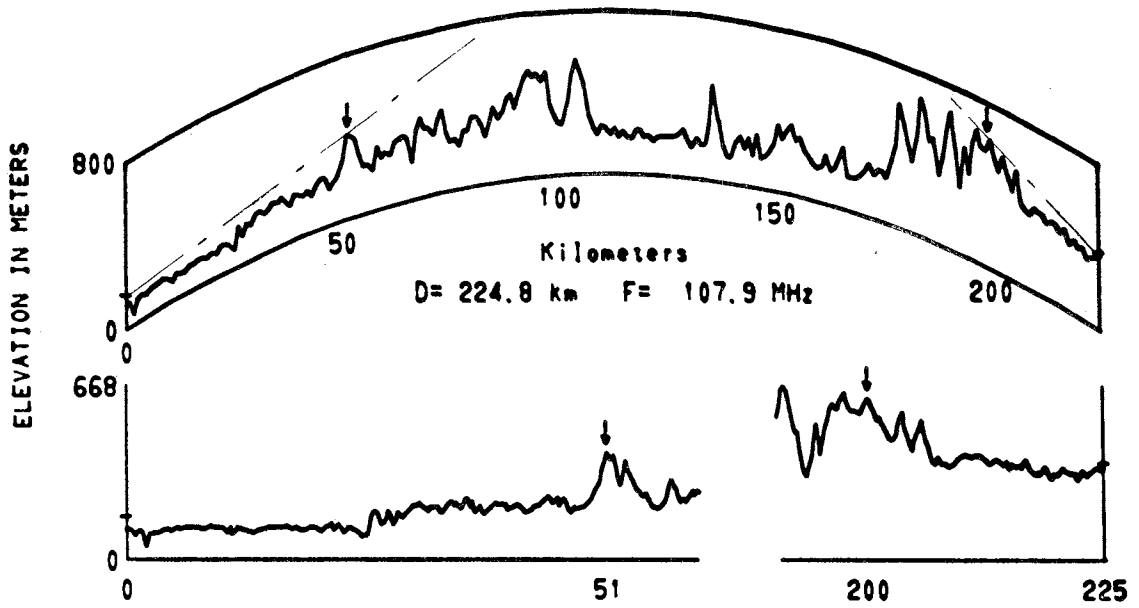
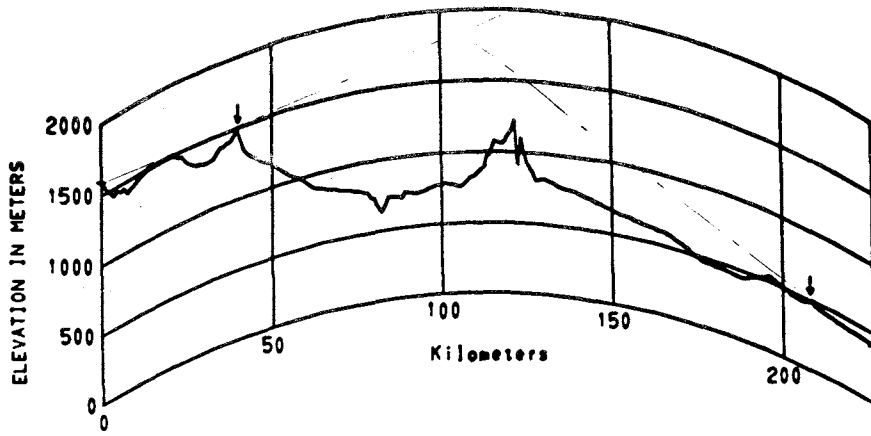
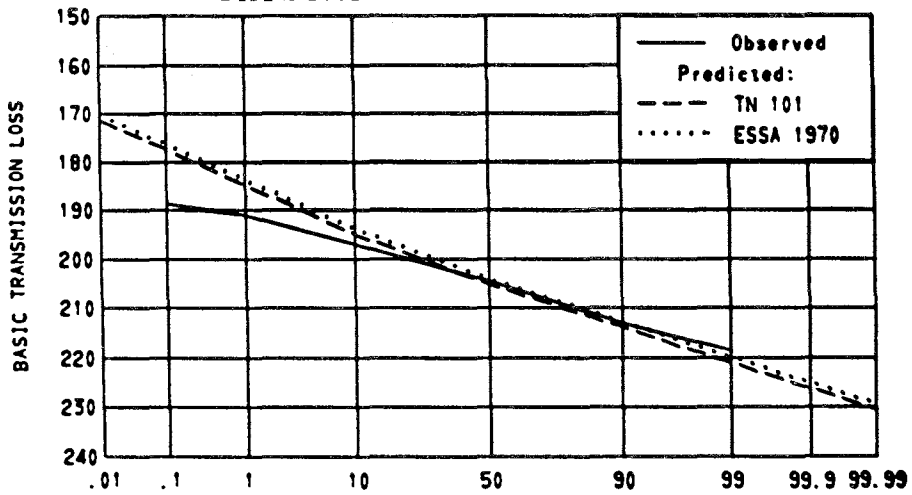


Figure 3.28 Path 36

PATHS 1700 1701 BLACKTAIL CANYON ARIZ - WILLIAMS AFB ARIZ



PATH 1701 D = 226.4 km F = 880.0 MHz



PATH 1700 D = 226.4 km F = 950.0 MHz

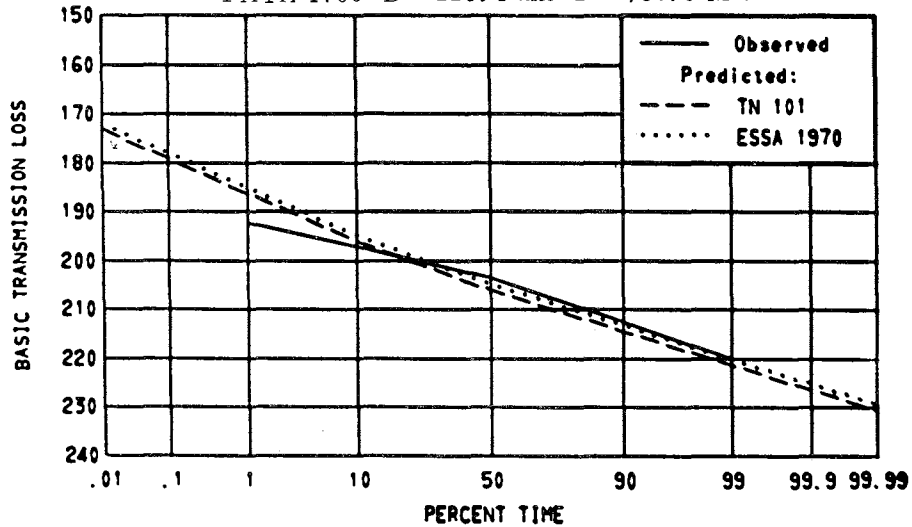


Figure 3.29 Paths 1700 1701

PATHS 342 382 CHEYENNE MTN B COLO - SHERIDAN LAKE COLO

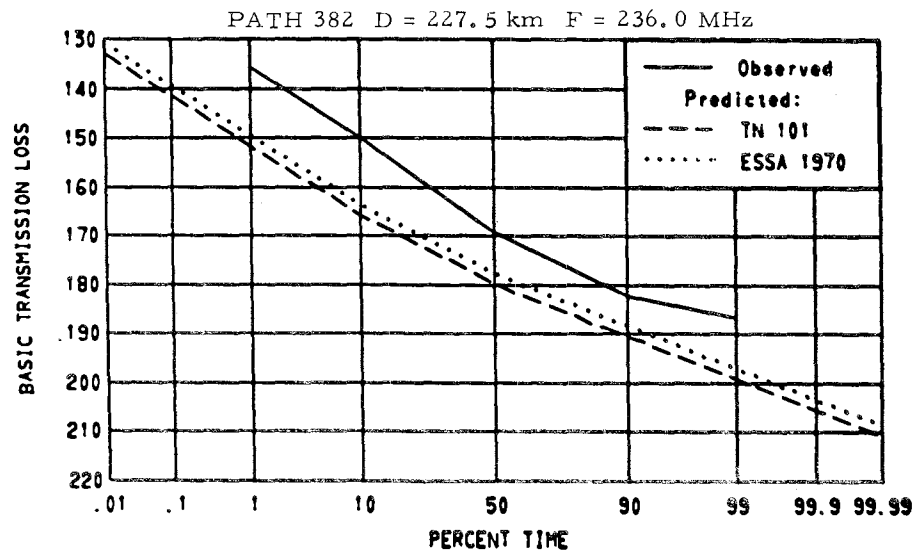
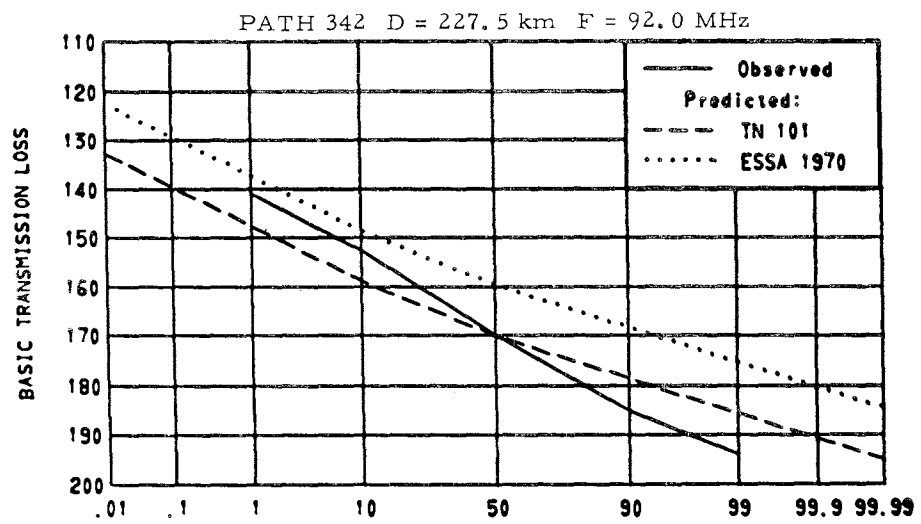
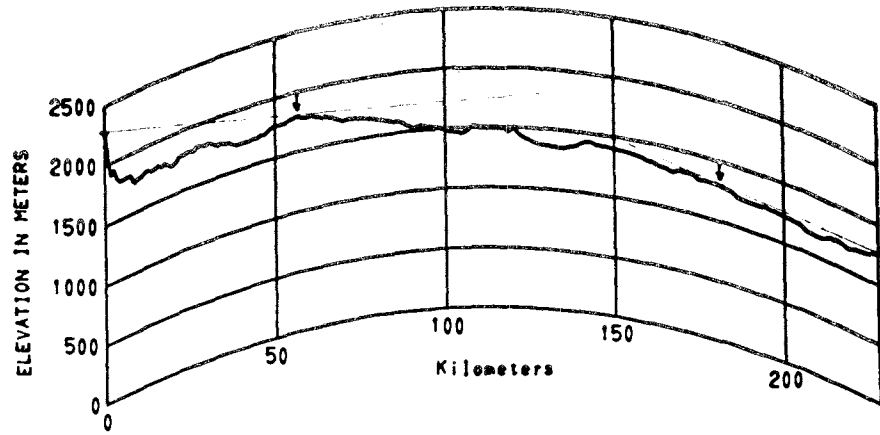


Figure 3.30 Paths 342 382

PATH 203 HOUSTON TEXAS - AUSTIN TEXAS

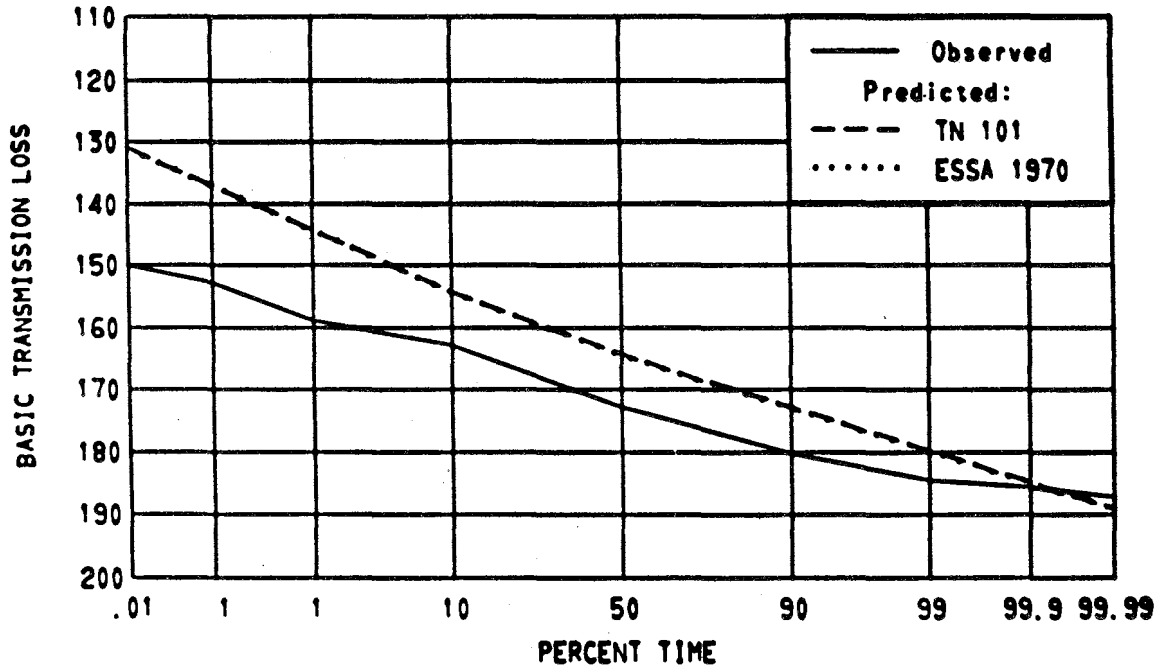
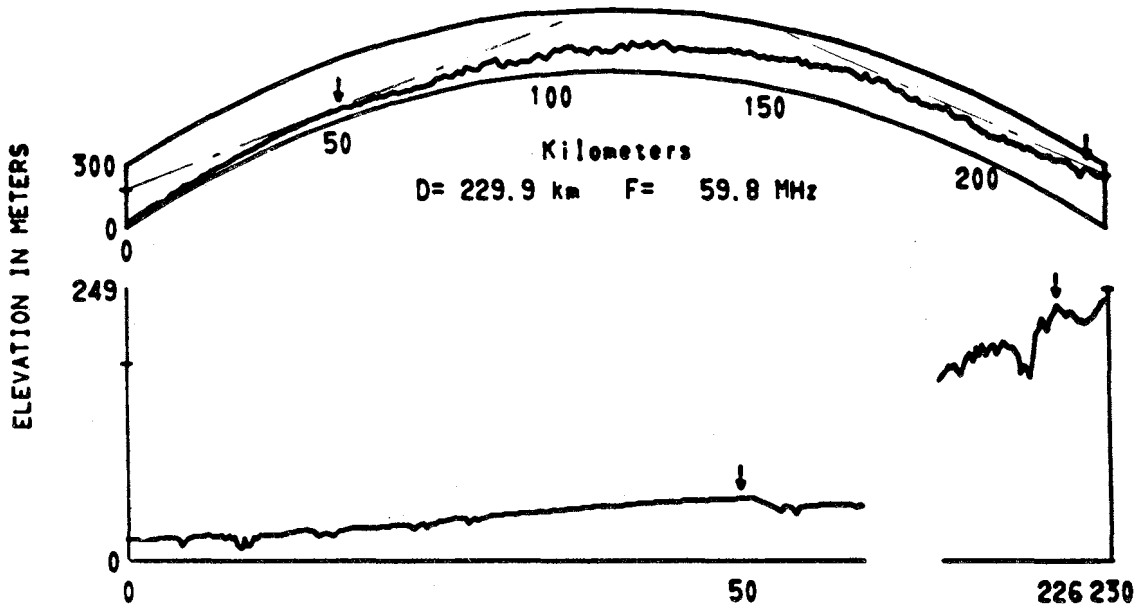


Figure 3.31 Path 203

PATH 217 DETROIT MICH - ALLEGAN MICH

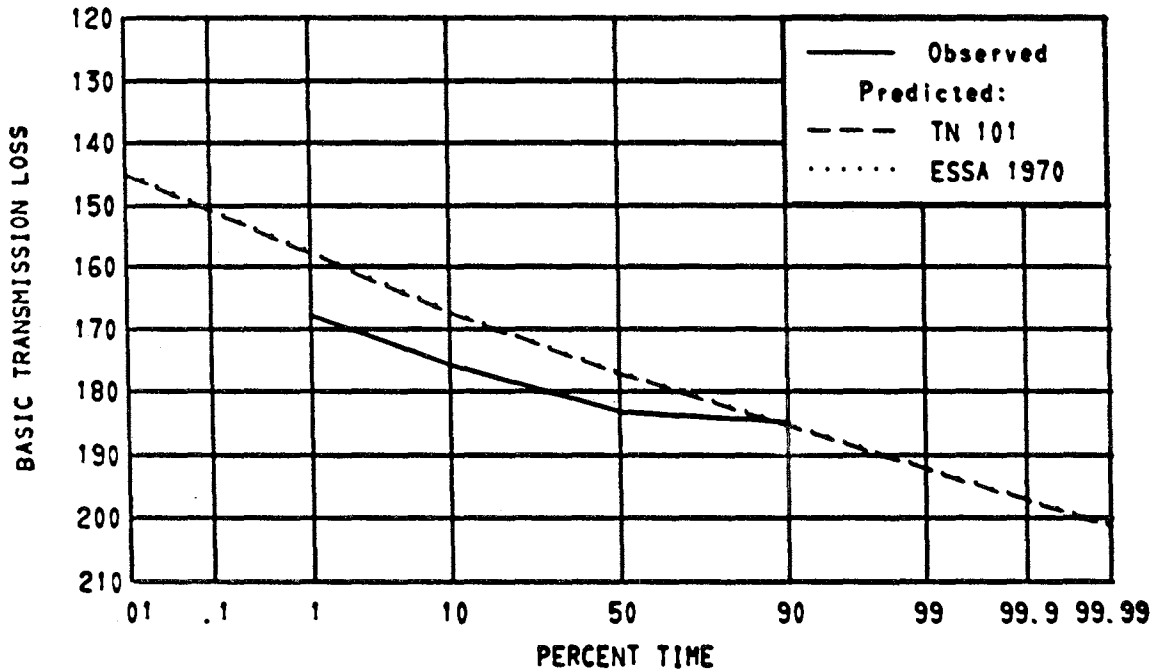
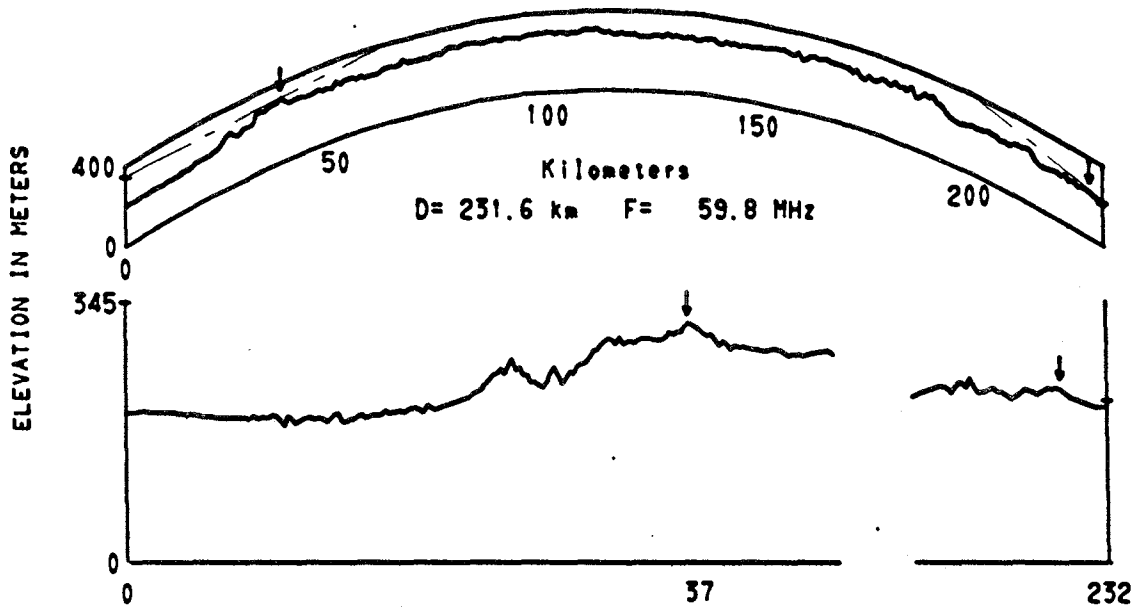


Figure 3.32 Path 217

PATH 19 ST LOUIS MO - URBANA ILL

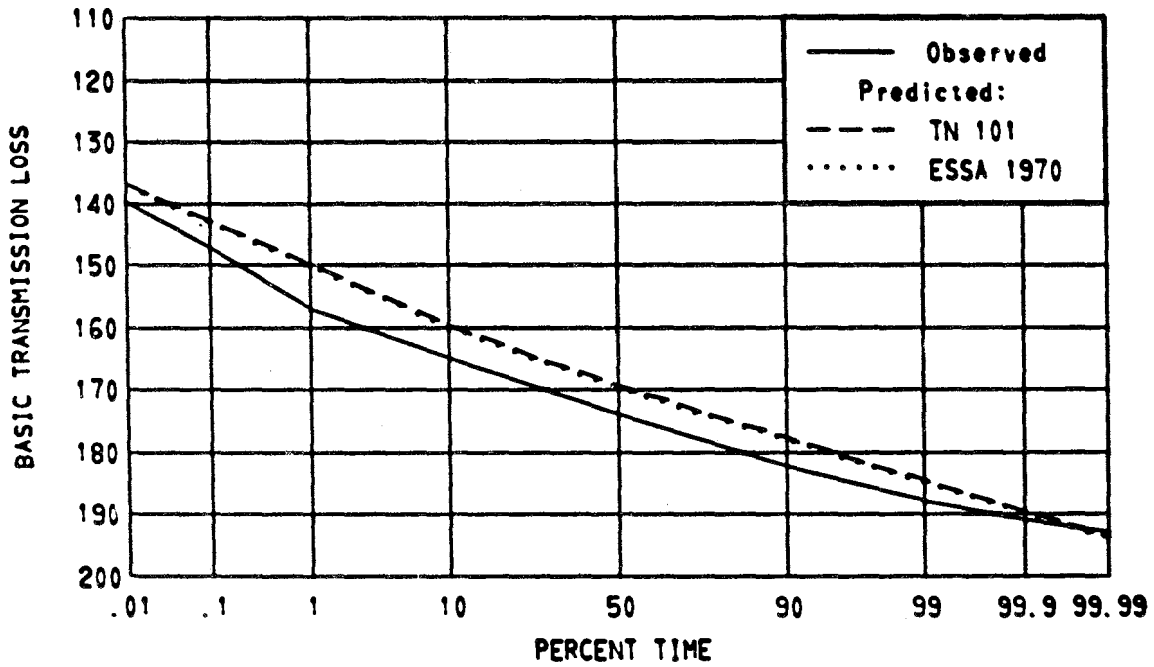
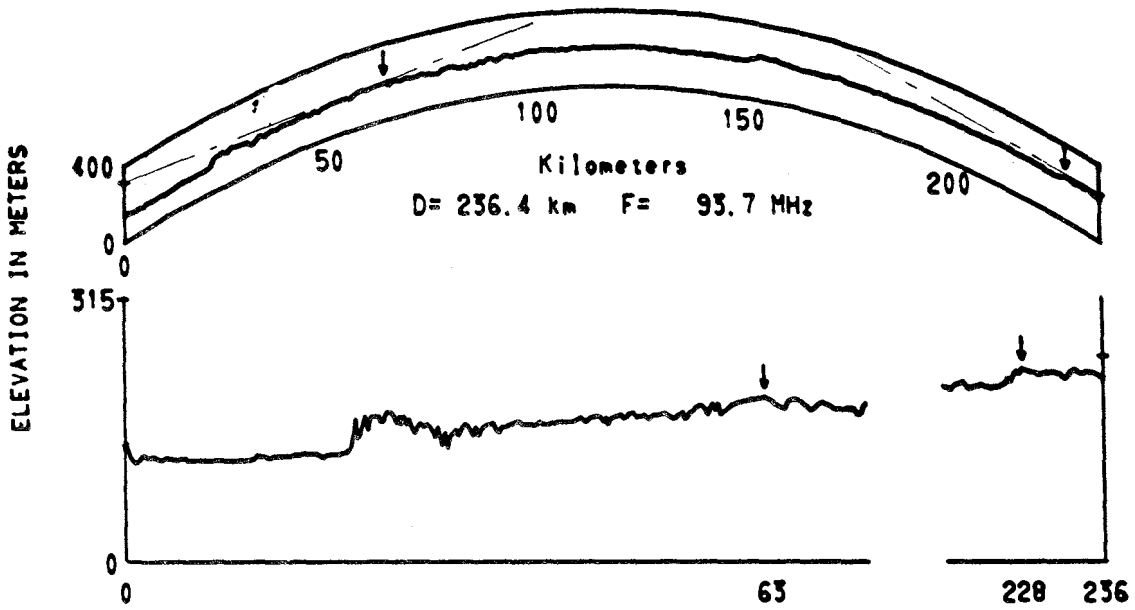
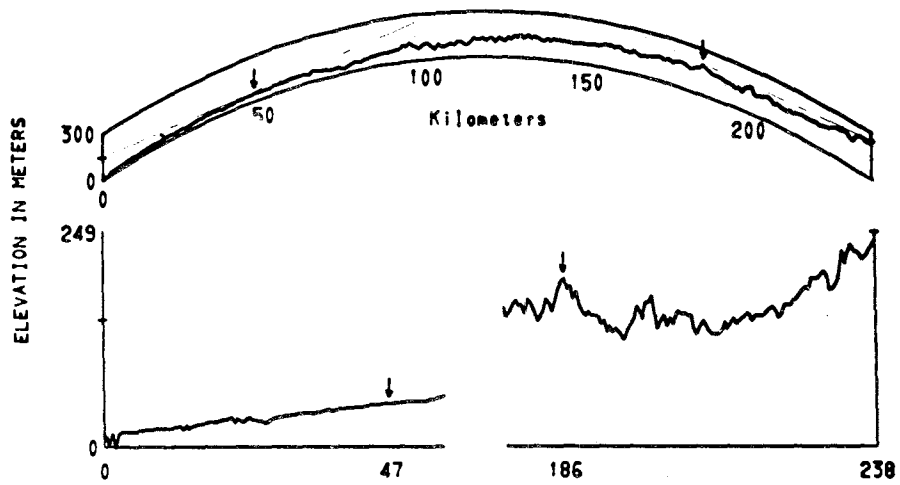
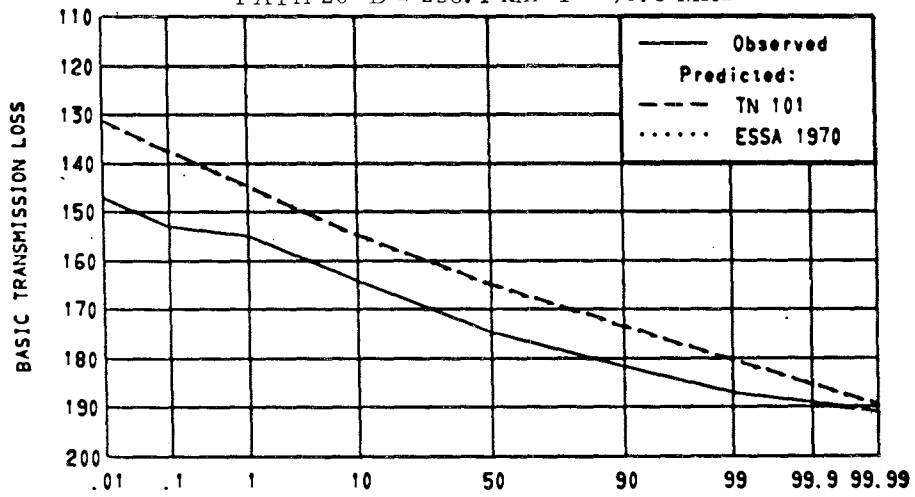


Figure 3.33 Path 19

PATHS 13 20 HOUSTON TEXAS - AUSTIN TEXAS



PATH 20 D = 238.1 km F = 96.5 MHz



PATH 13 D = 238.0 km F = 102.9 MHz

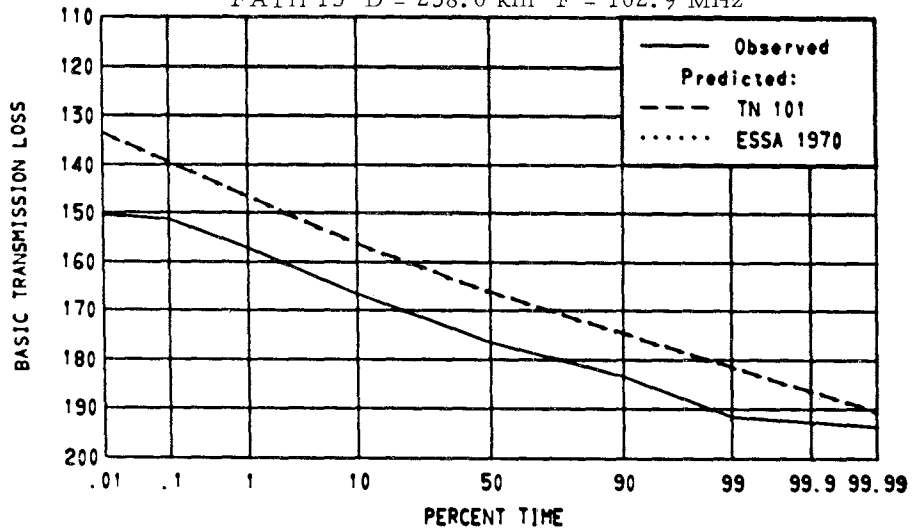


Figure 3.34 Paths 13 20

PATH 12 PORTLAND ORE - SEATTLE WASH

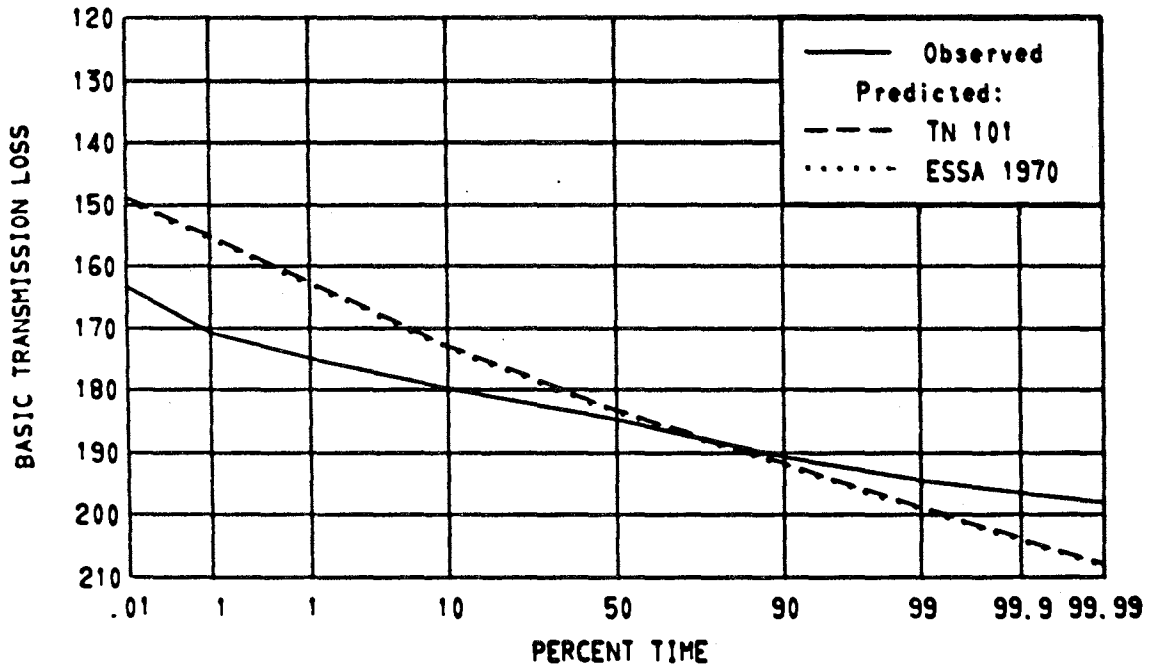
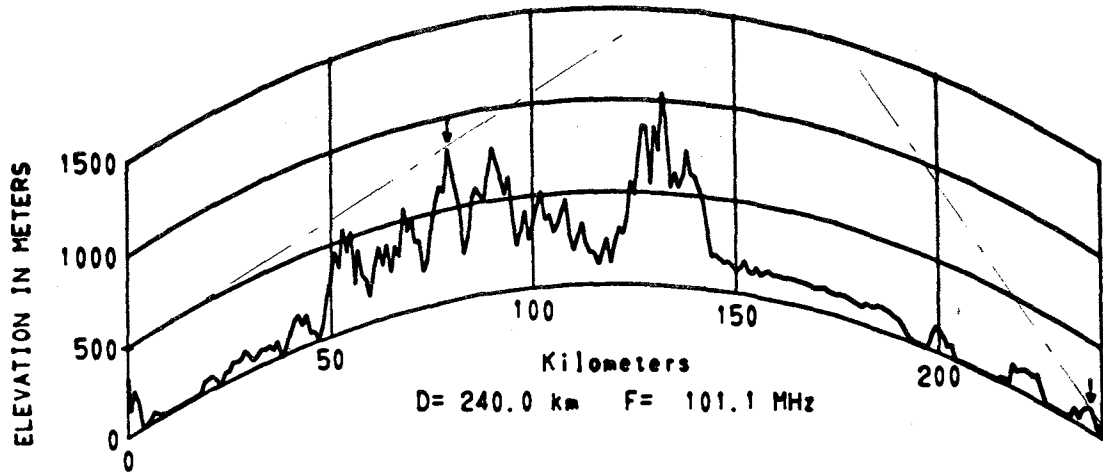


Figure 3.35 Path 12

PATH 59 GREENVILLE S C - POWDER SPGS GA

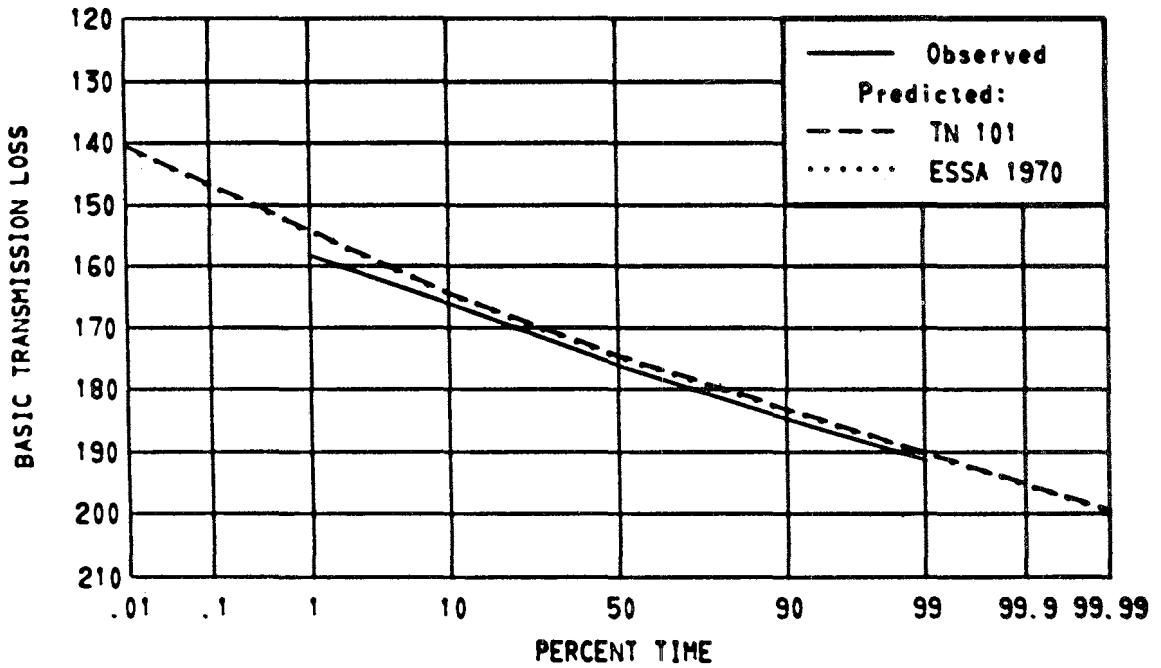
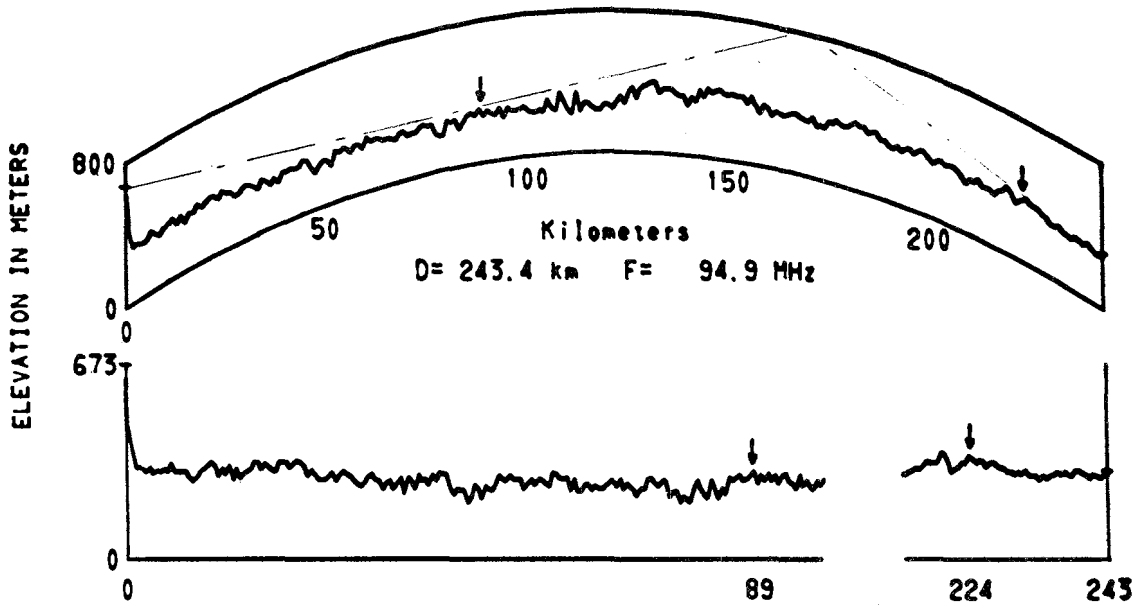
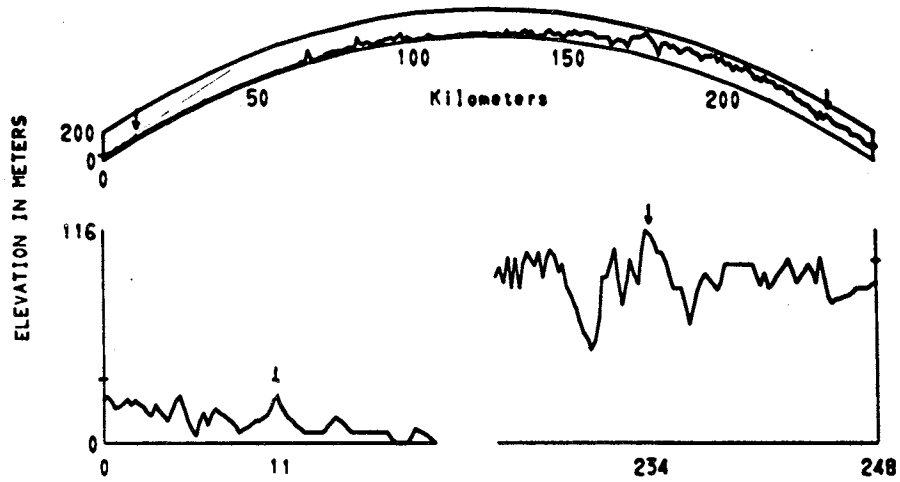
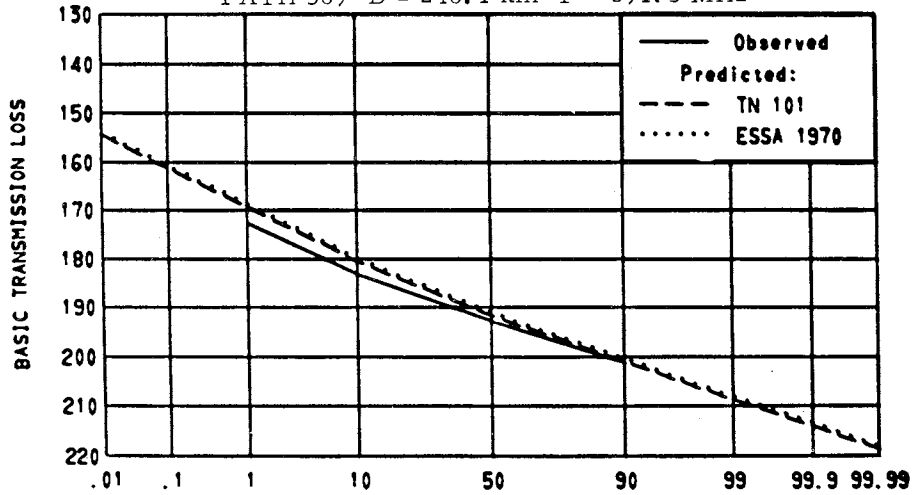


Figure 3.36 Path 59

PATHS 589 591 MOORESTOWN N J - STERLING VA



PATH 589 D = 248.1 km F = 391.5 MHz



PATH 591 D = 248.1 km F = 2820.0 MHz

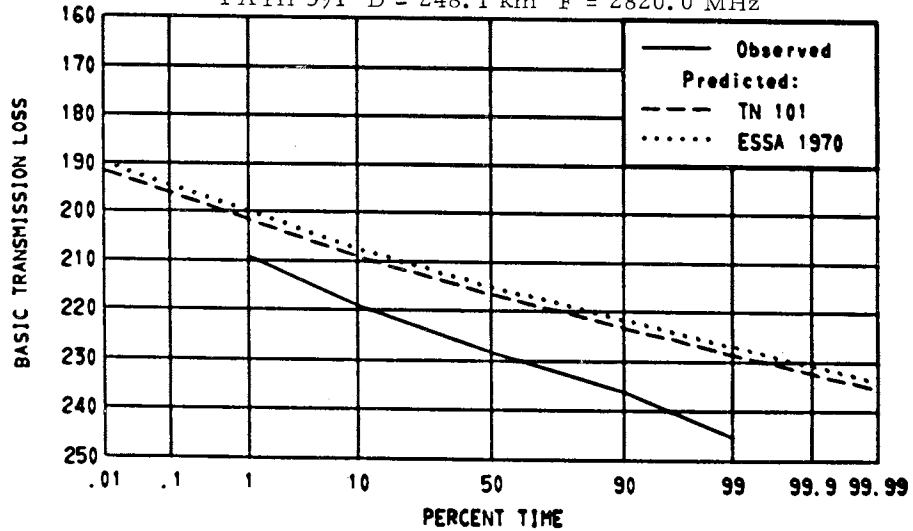


Figure 3.37 Paths 589 591

PATHS 90 95 ATLANTA GA - MANCHESTER TENN

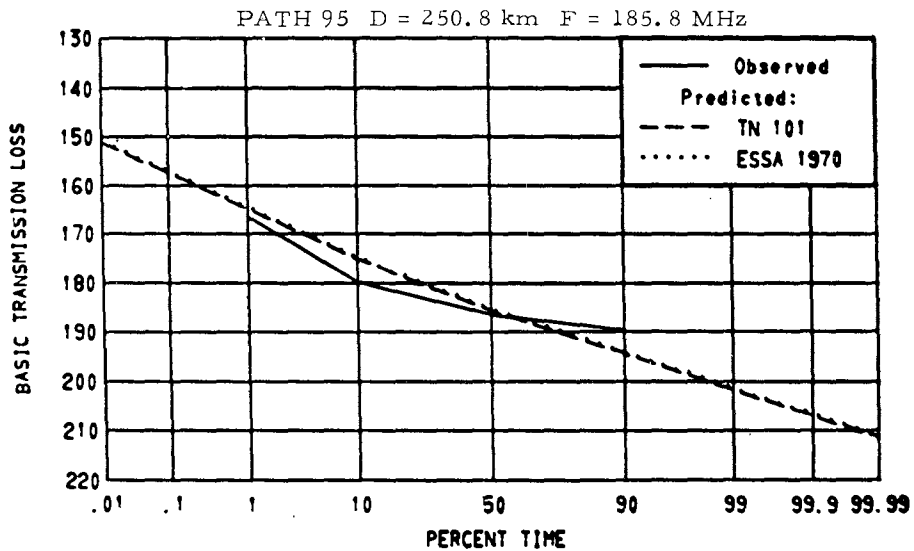
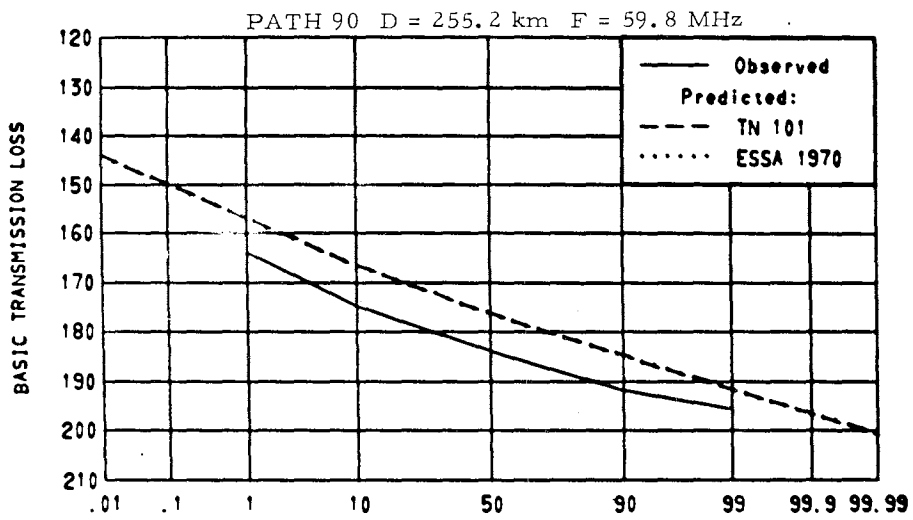
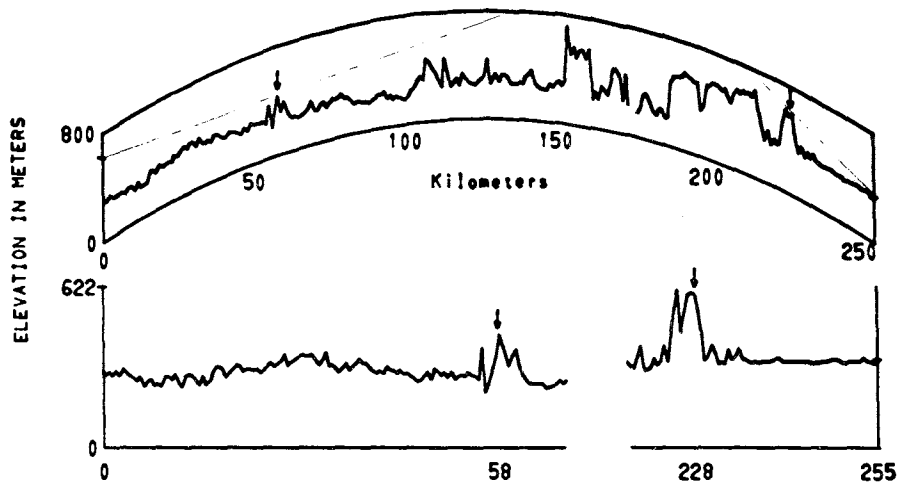


Figure 3.38 Paths 90 95

PATH 37 NEW YORK N Y - MILLIS MASS

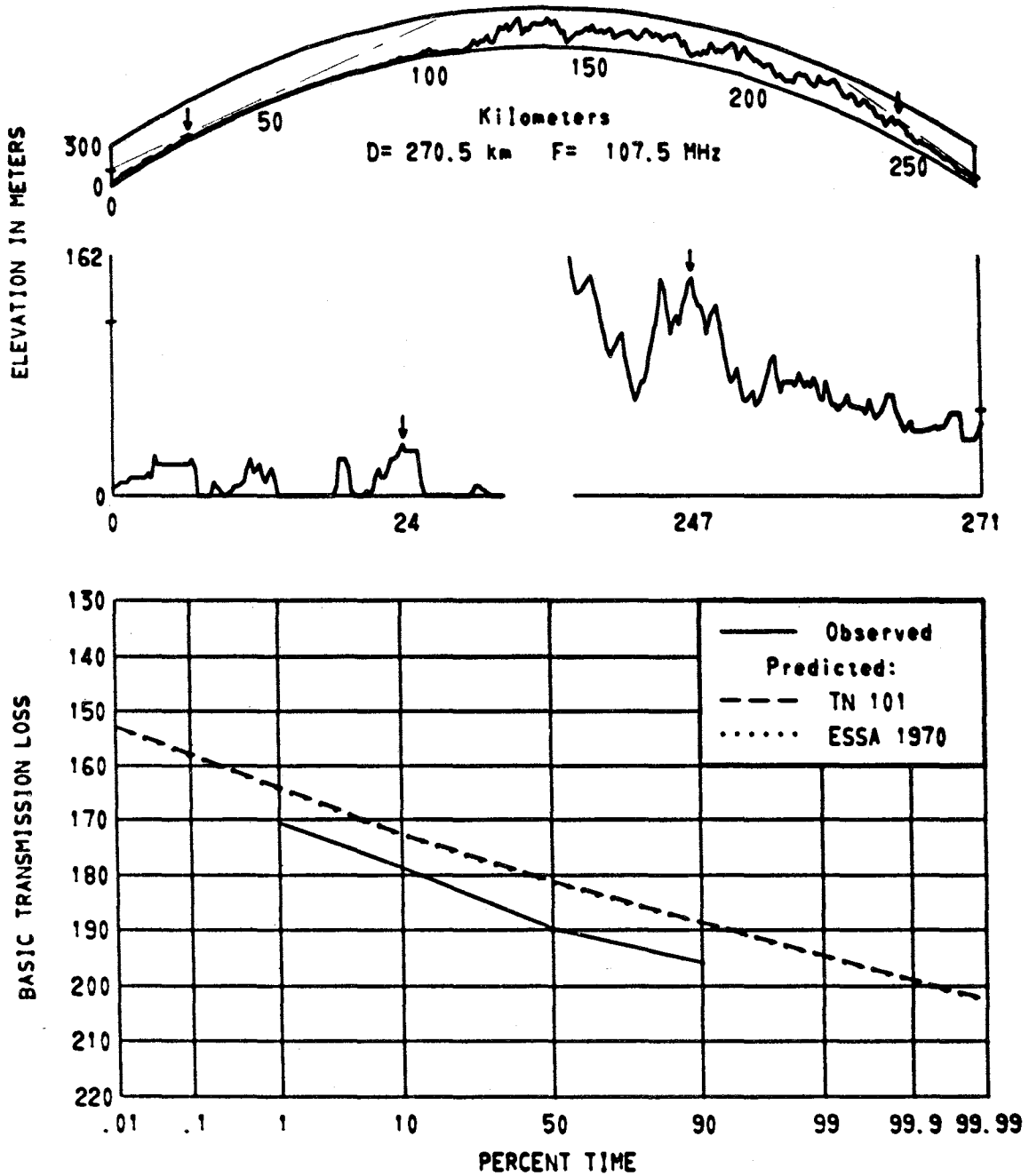
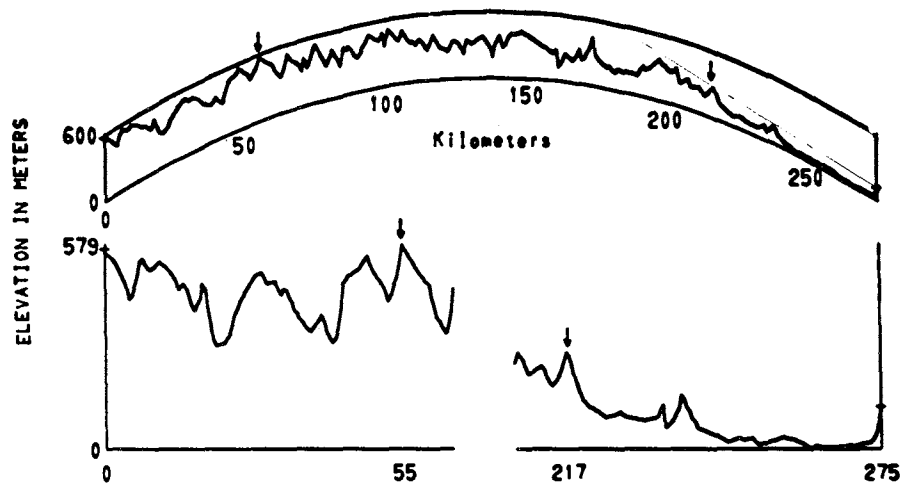
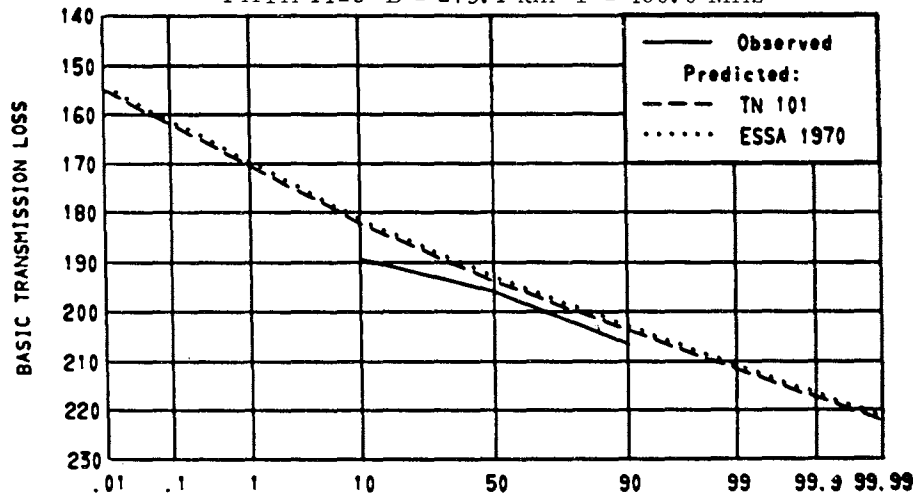


Figure 3.39 Path 37

PATHS 1123 1124 PHARSALIA N Y - CRAWFORDS HILL N J



PATH 1123 D = 275.1 km F = 460.0 MHz



PATH 1124 D = 275.1 km F = 4110.0 MHz

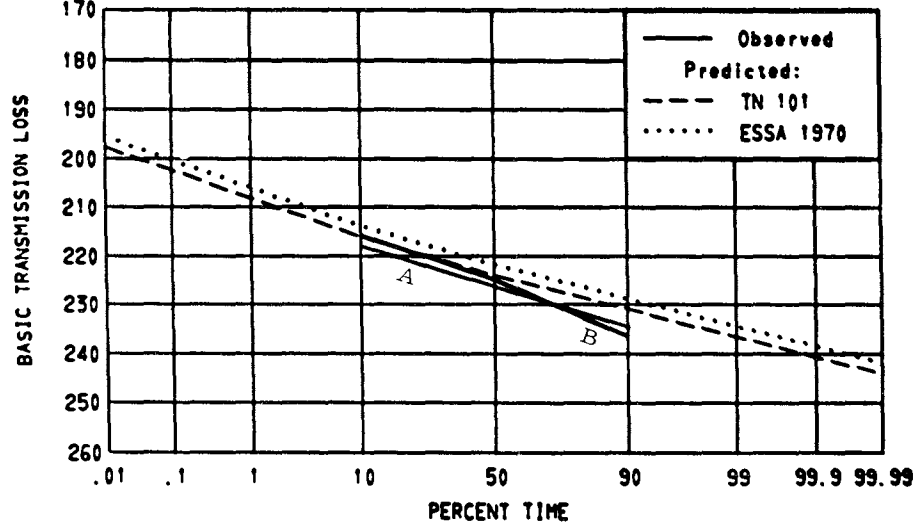


Figure 3.40 Paths 1123 1124

PATH 38 DALLAS TEXAS - AUSTIN TEXAS

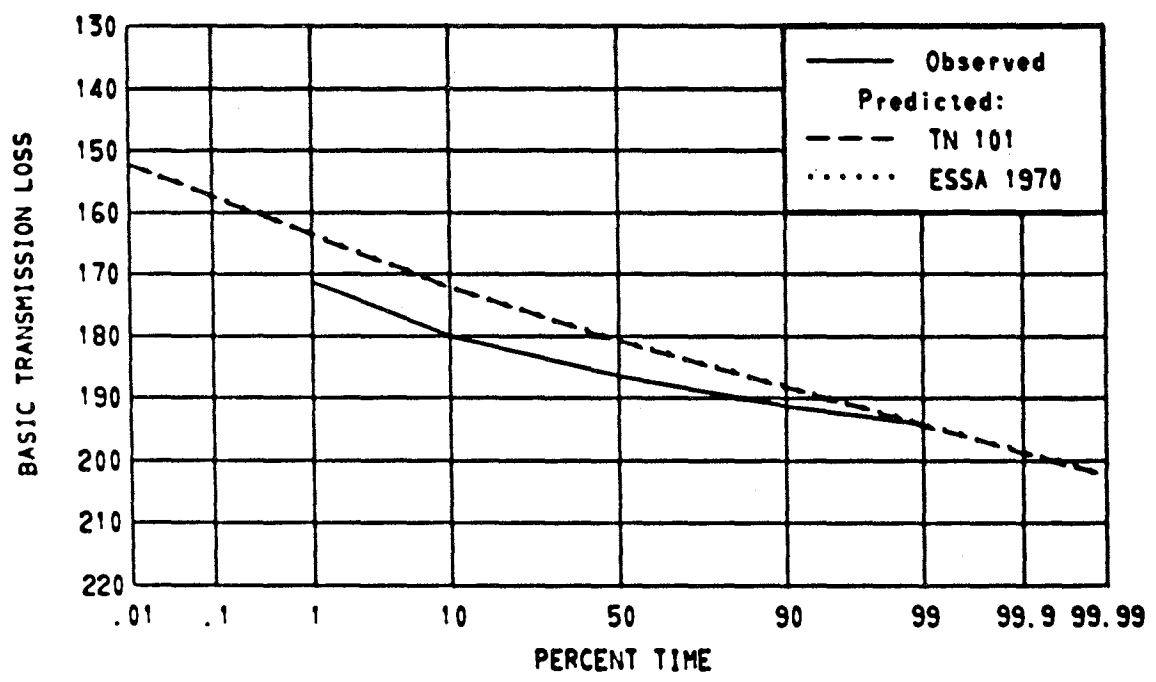
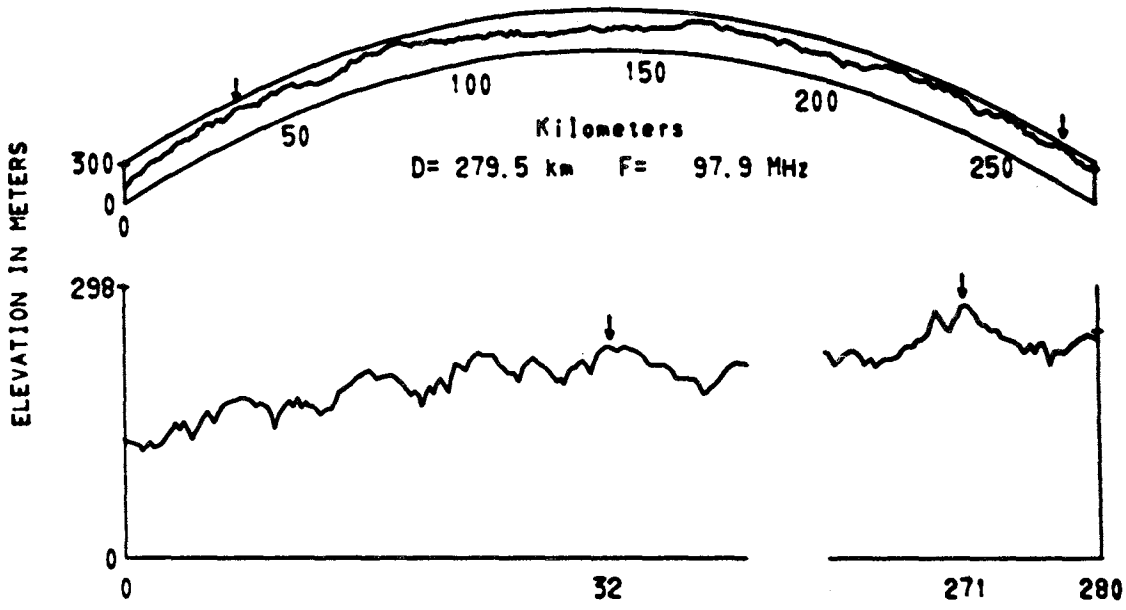


Figure 3.41 Path 38

PATH 211 DALLAS TEXAS - AUSTIN TEXAS

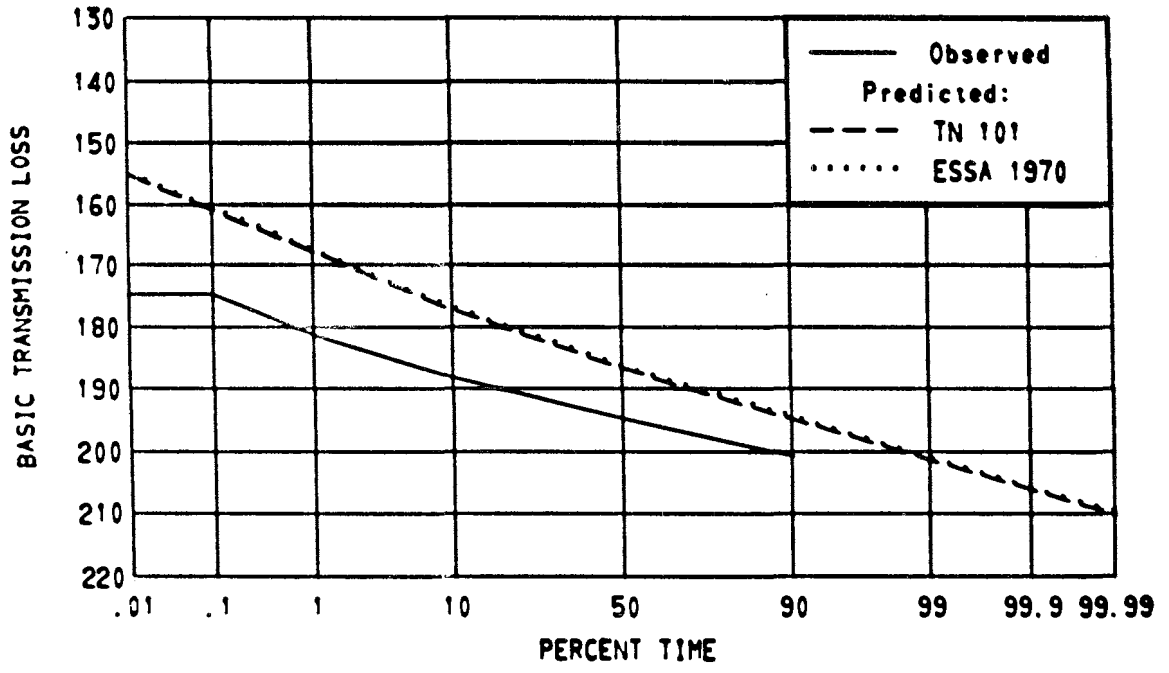
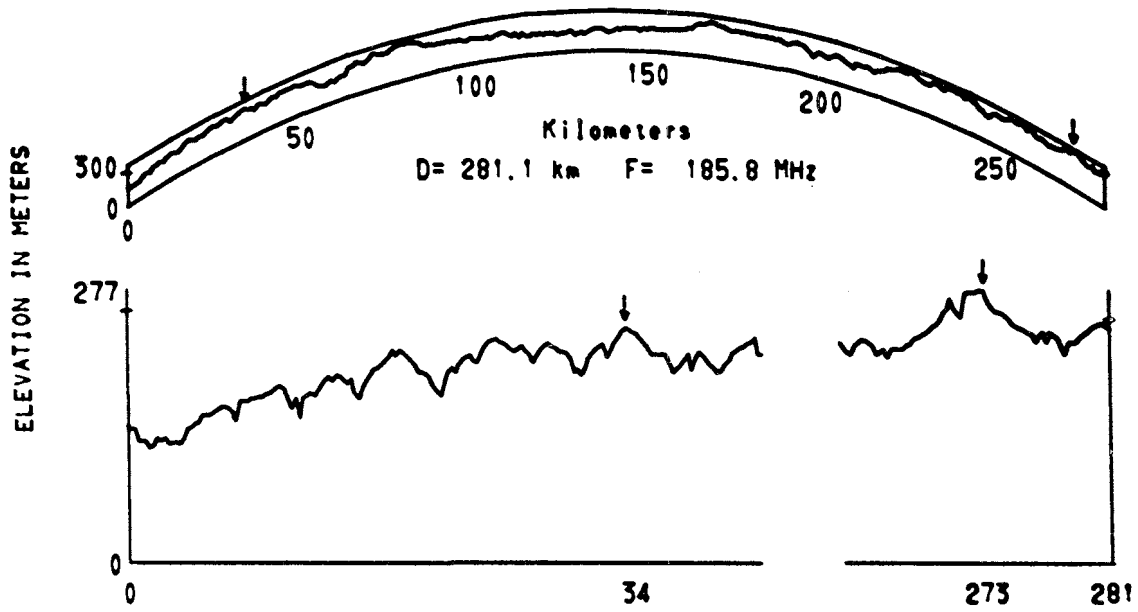


Figure 3.42 Path 211

PATH 8 DALLAS TEXAS - AUSTIN TEXAS

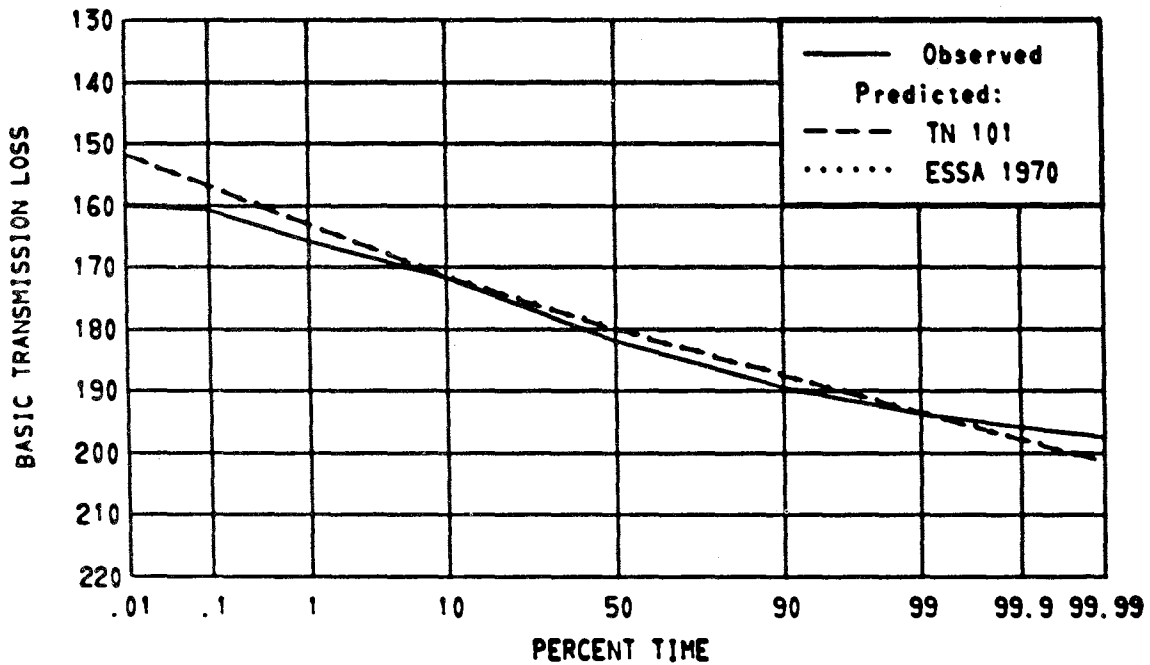
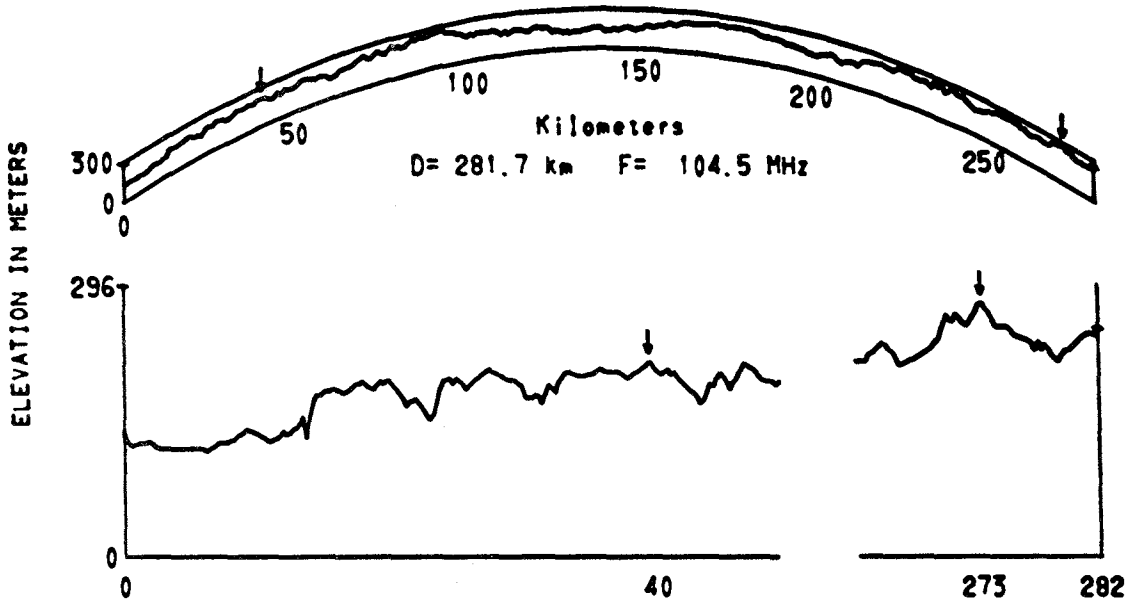


Figure 3.43 Path 8

PATH 15 ABILENE TEXAS - AUSTIN TEXAS

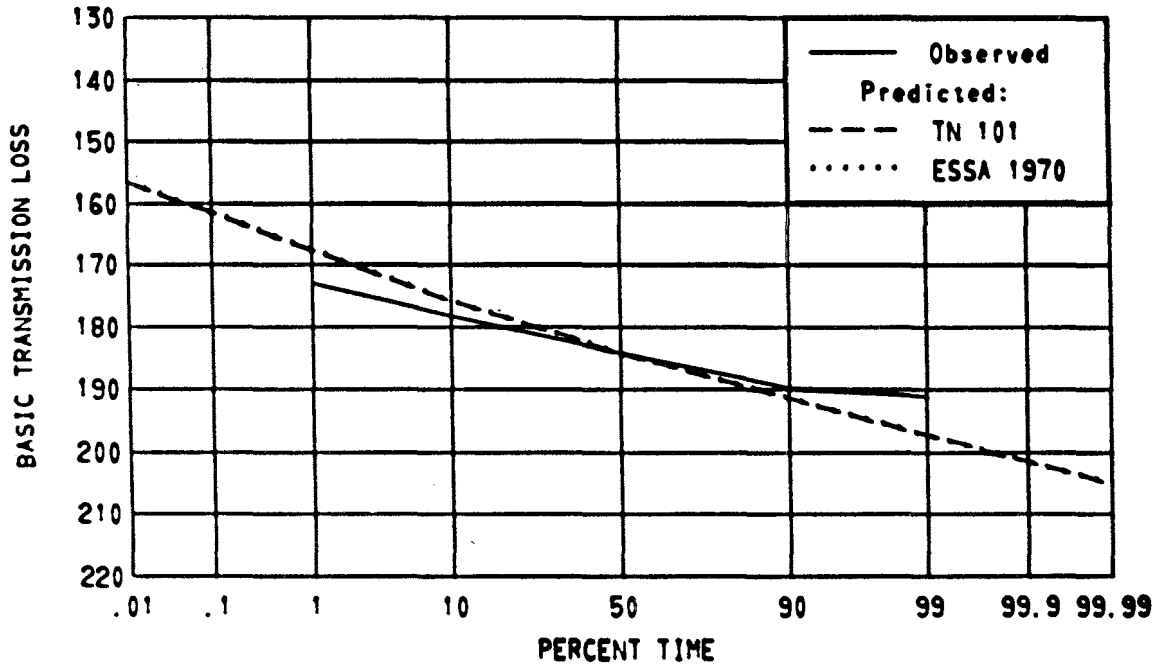
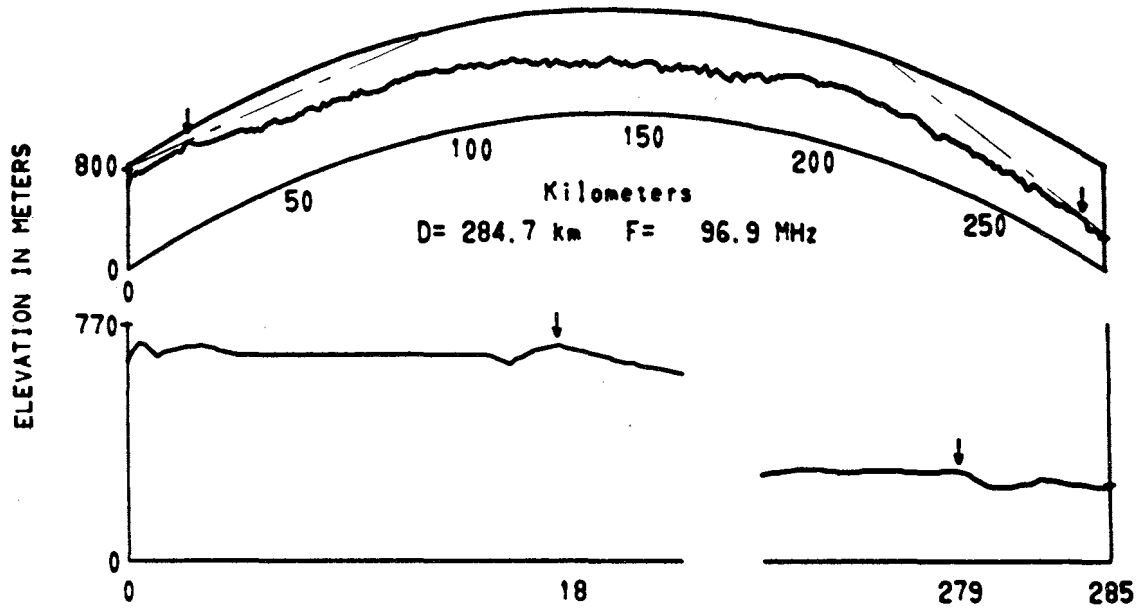


Figure 3.44 Path 15

PATH 32 TAMPA FLA - FORT LAUDERDALE FLA

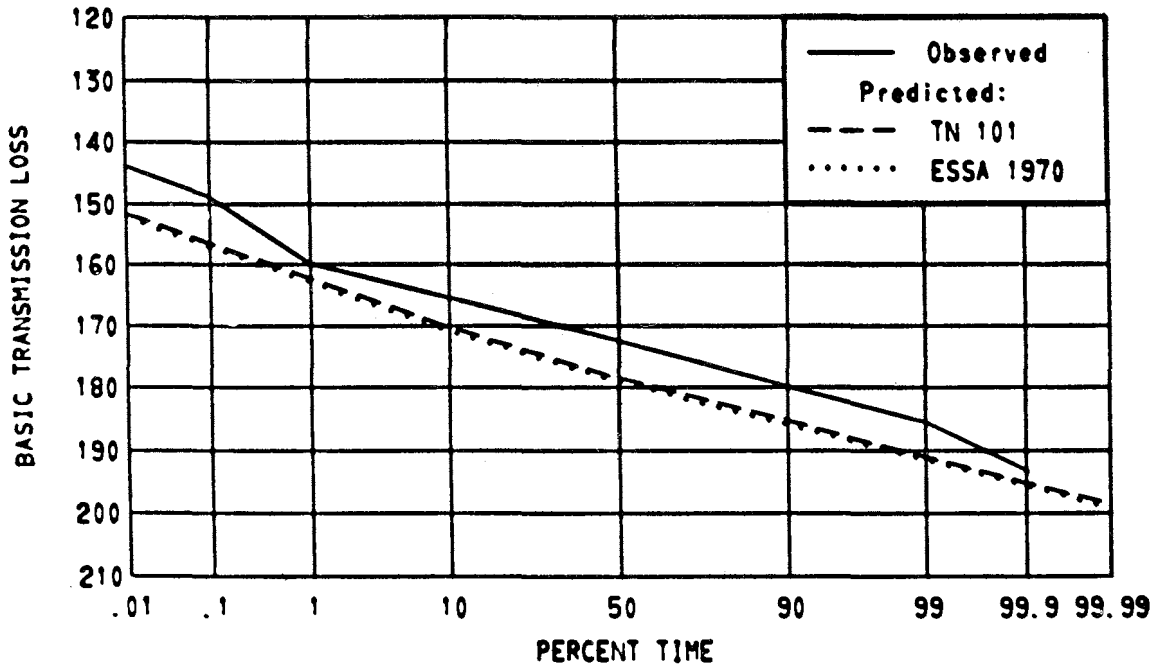
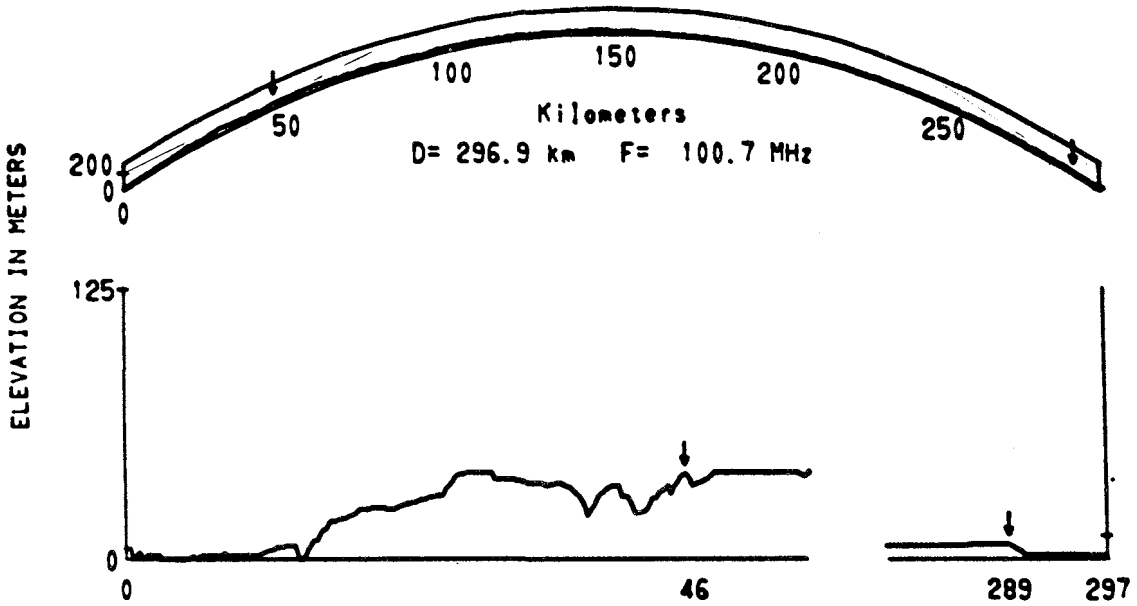


Figure 3.45 Path 32

PATH 51 ORLANDO FLA - FT LAUDERDALE FLA

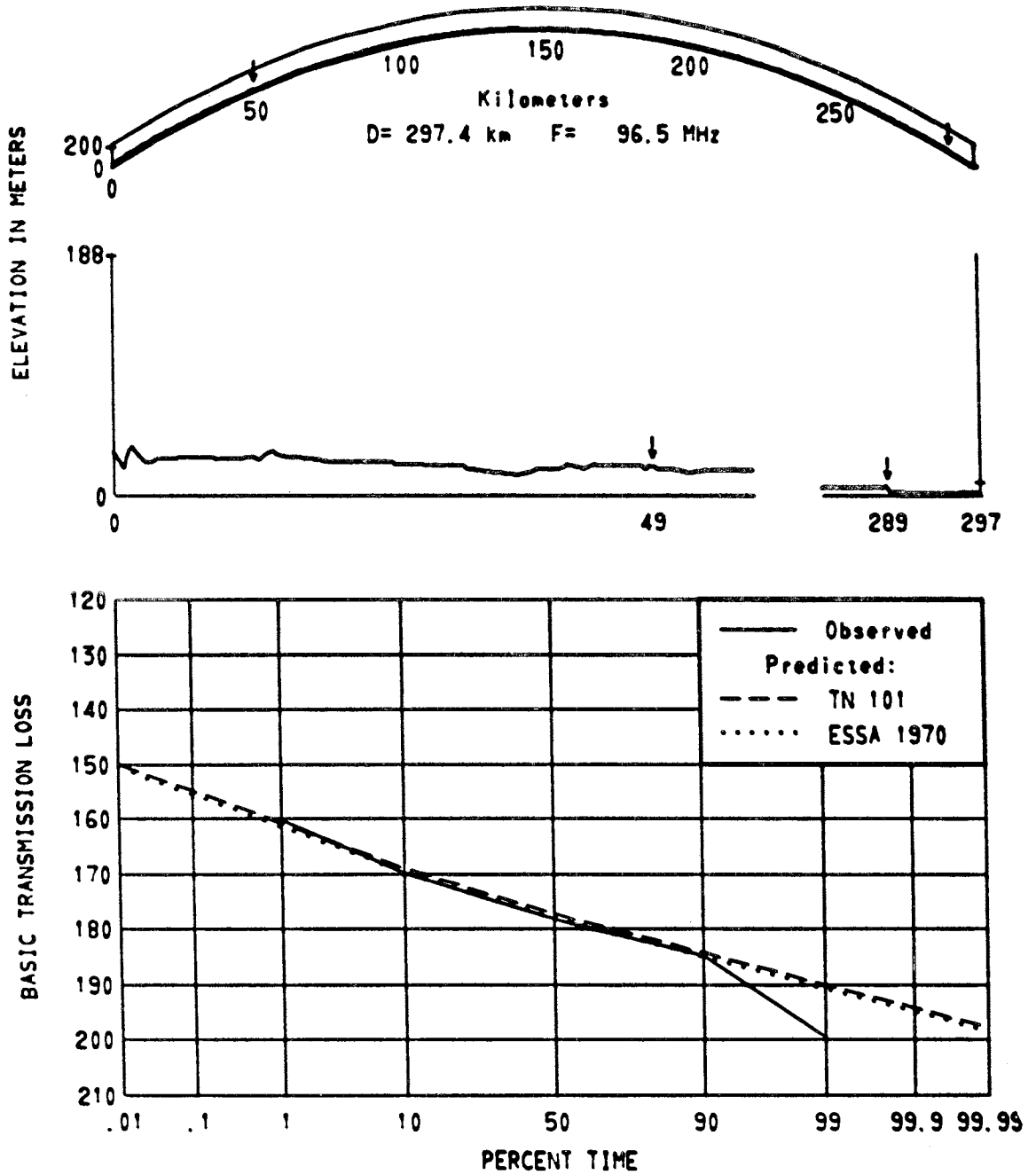


Figure 3.46 Path 51

PATH 917 ROUND HILL MASS - REDBANK N J

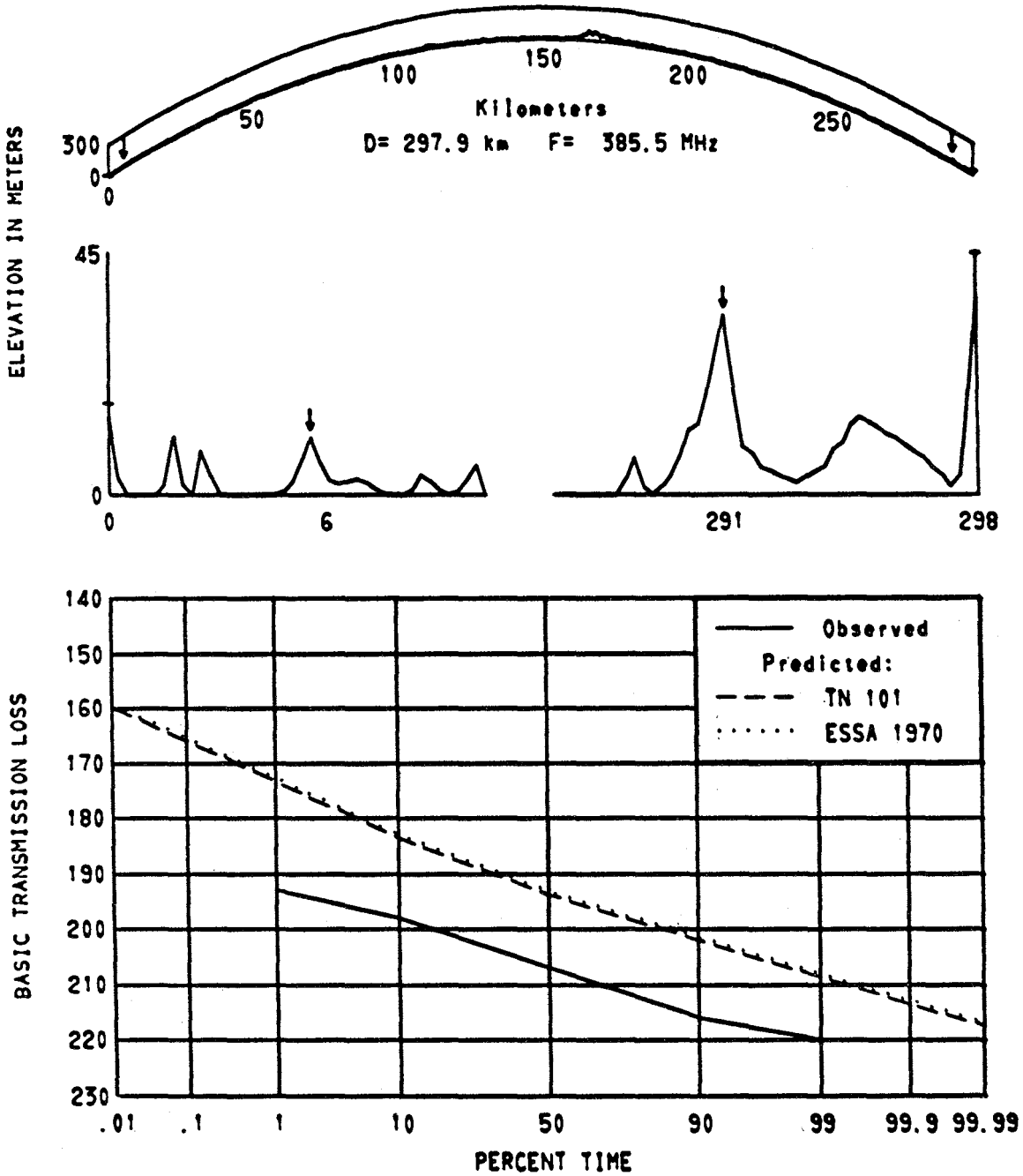
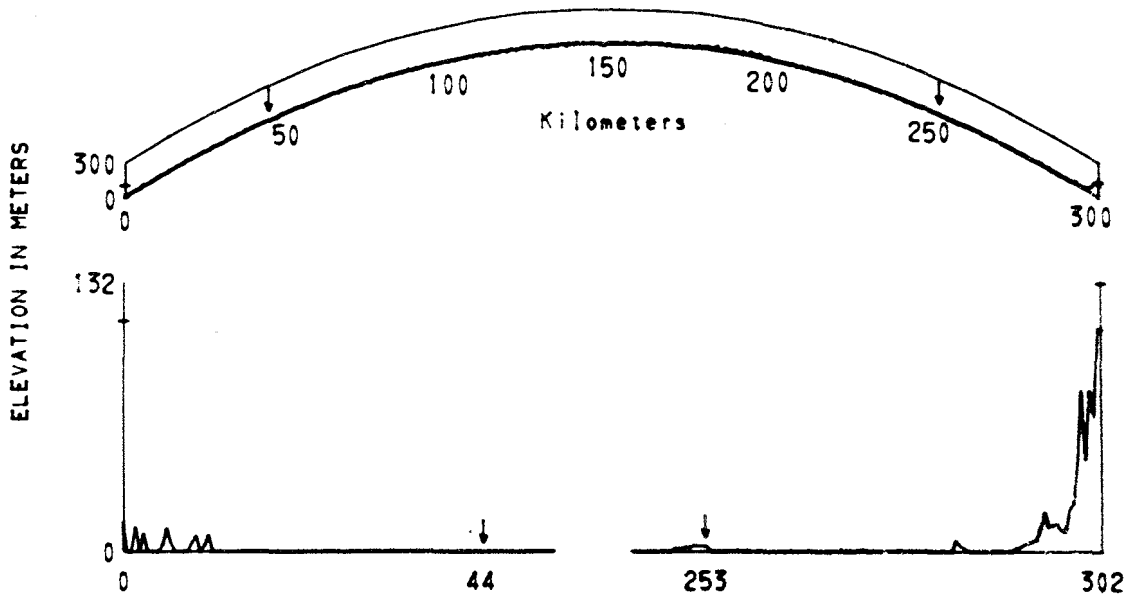


Figure 3.47 Path 917

PATHS 903 904 ROUND HILL MASS - CRAWFORDS HILL N J



PATHS 903 904 D = 302.3 km F = 417.0, 2290.0 MHz

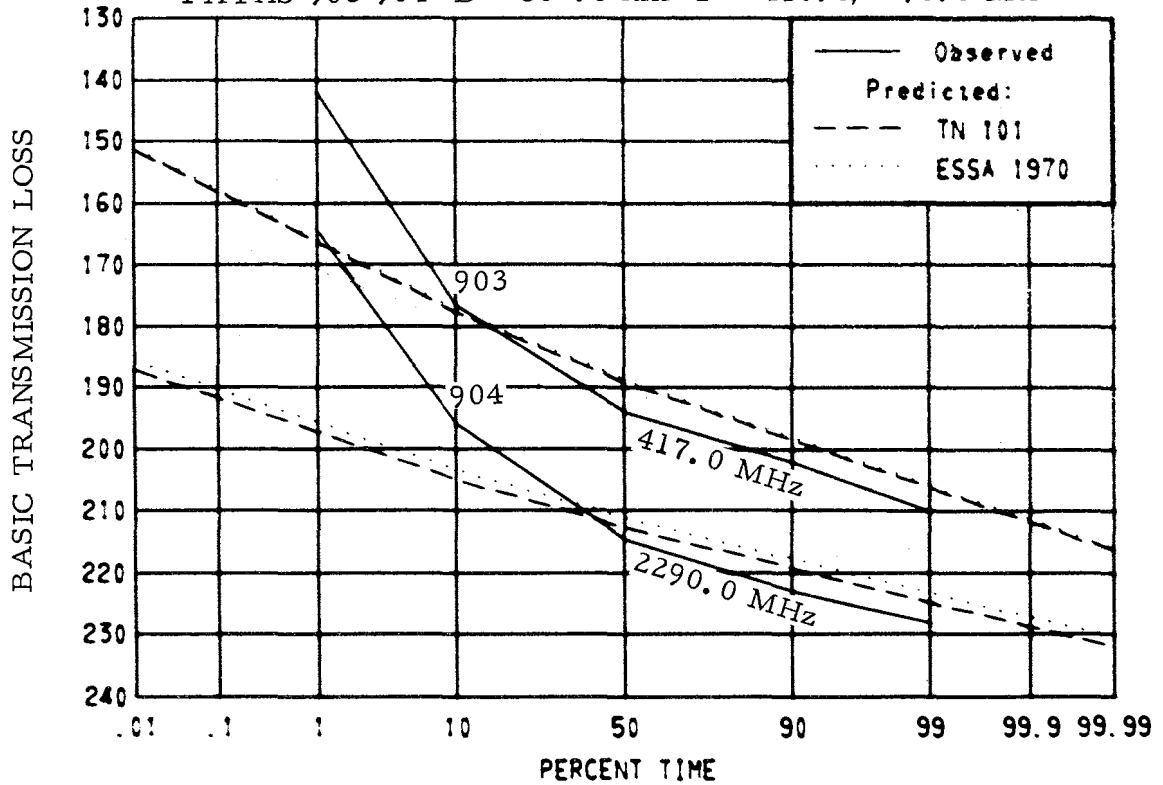


Figure 3.48 Paths 903 904

PATH 58 CLINGMANS PEAK N C • POWDER SPGS GA

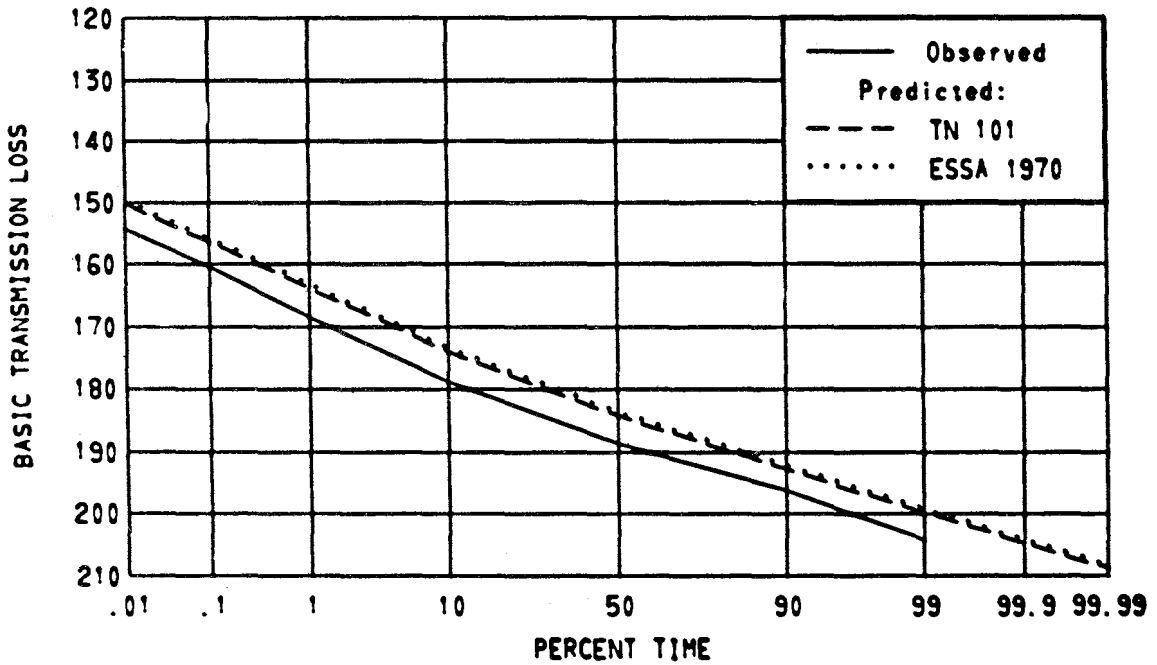
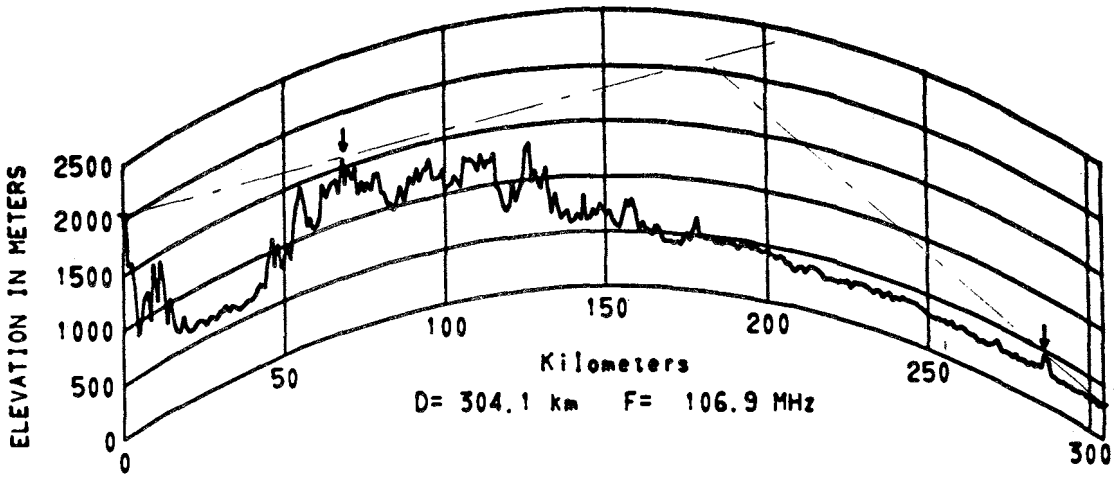


Figure 3.49 Path 58

PATHS 53 71 PITTSBURGH PA - LAUREL MD

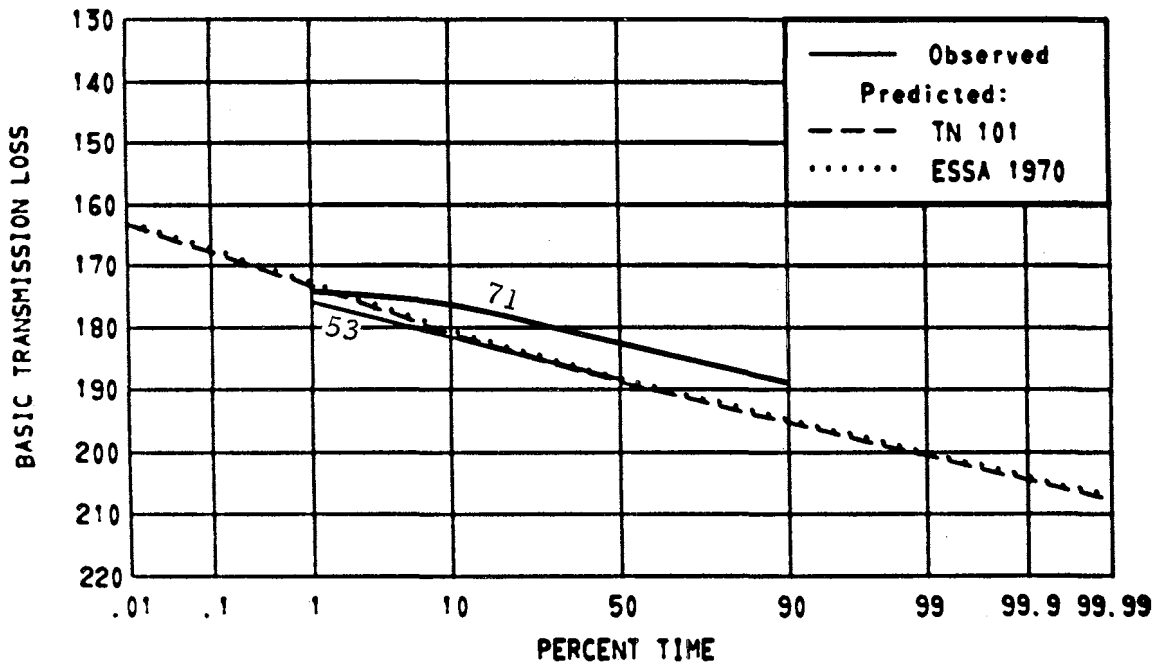
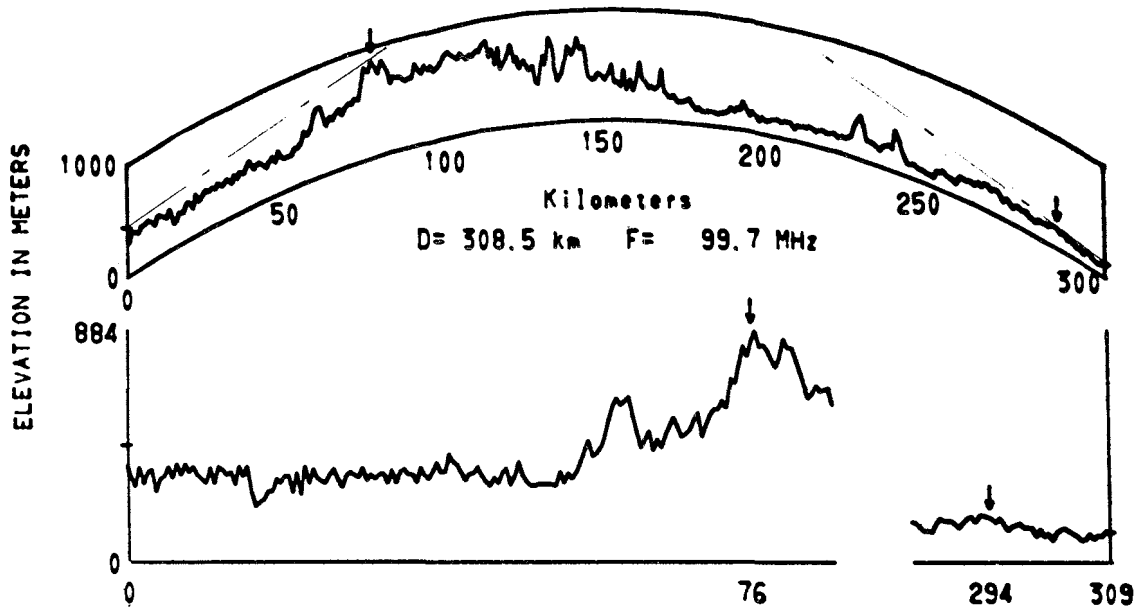


Figure 3.50 Paths 53 71

PATH 396 FT CARSON COLO - GARDEN CITY KANS

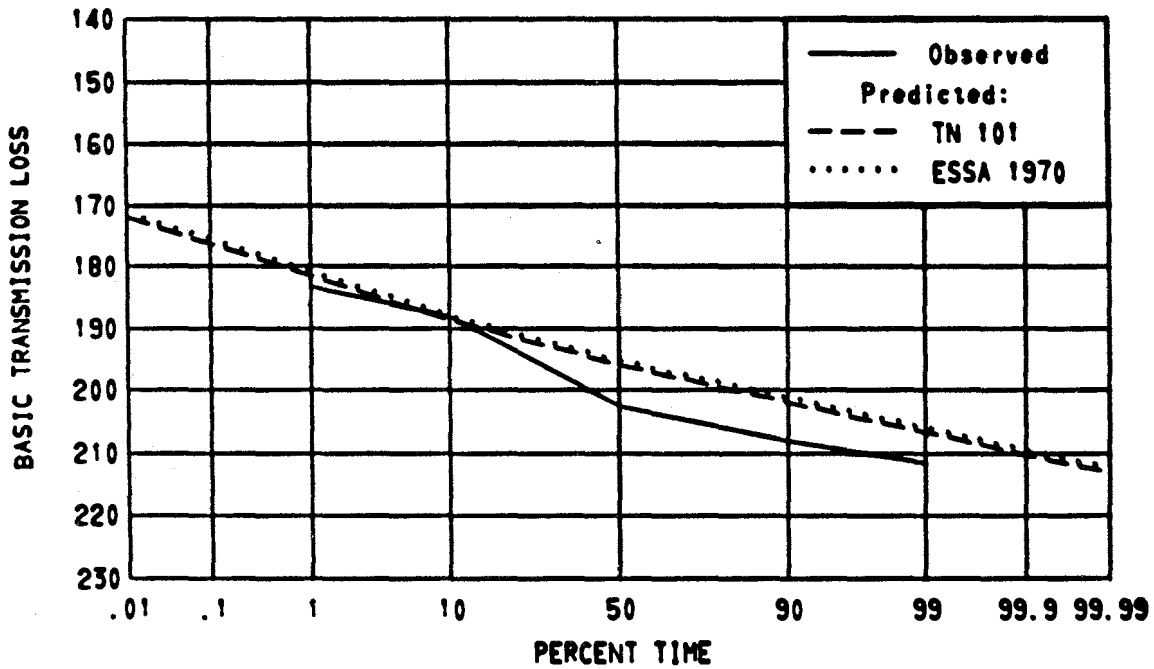
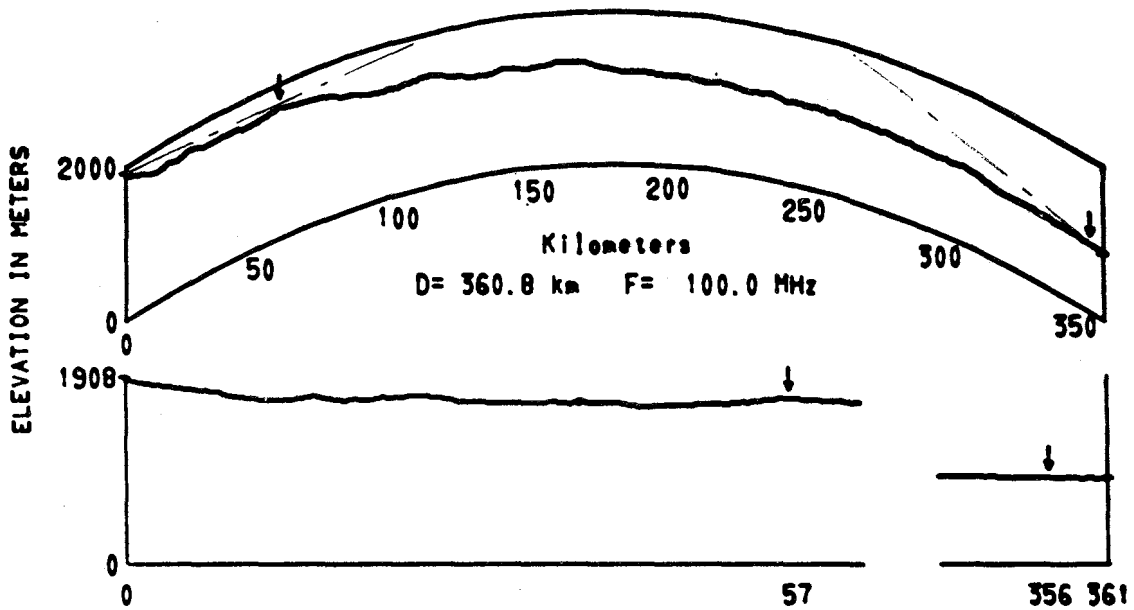


Figure 3.51 Path 396

PATH 9 LONGVIEW TEXAS - AUSTIN TEXAS

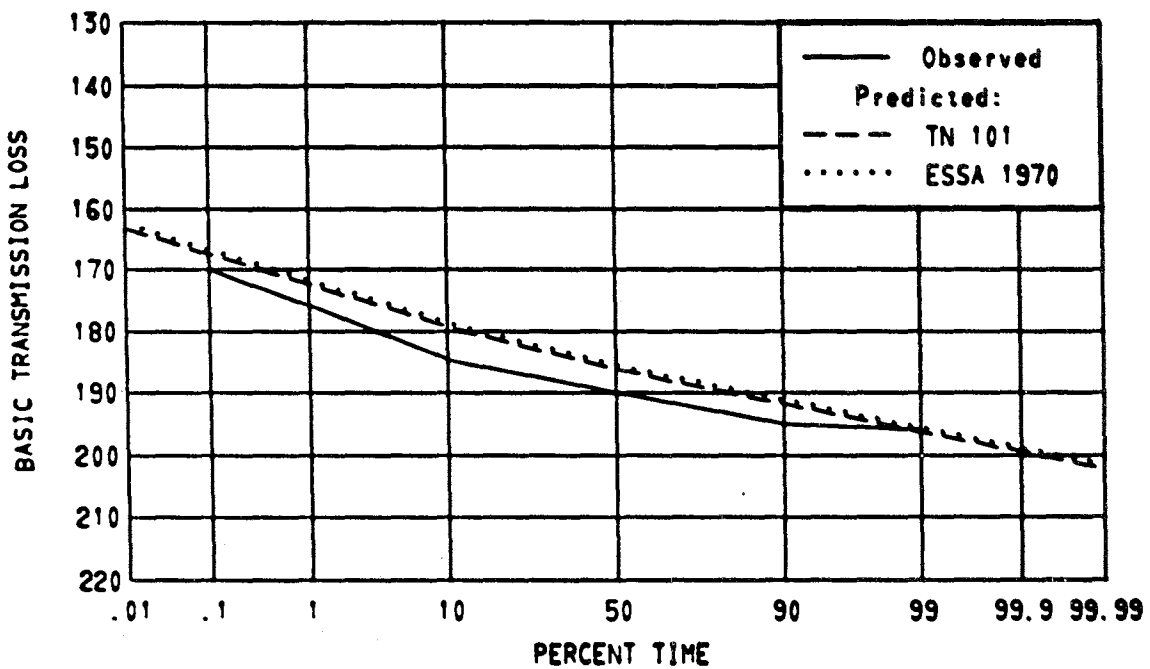
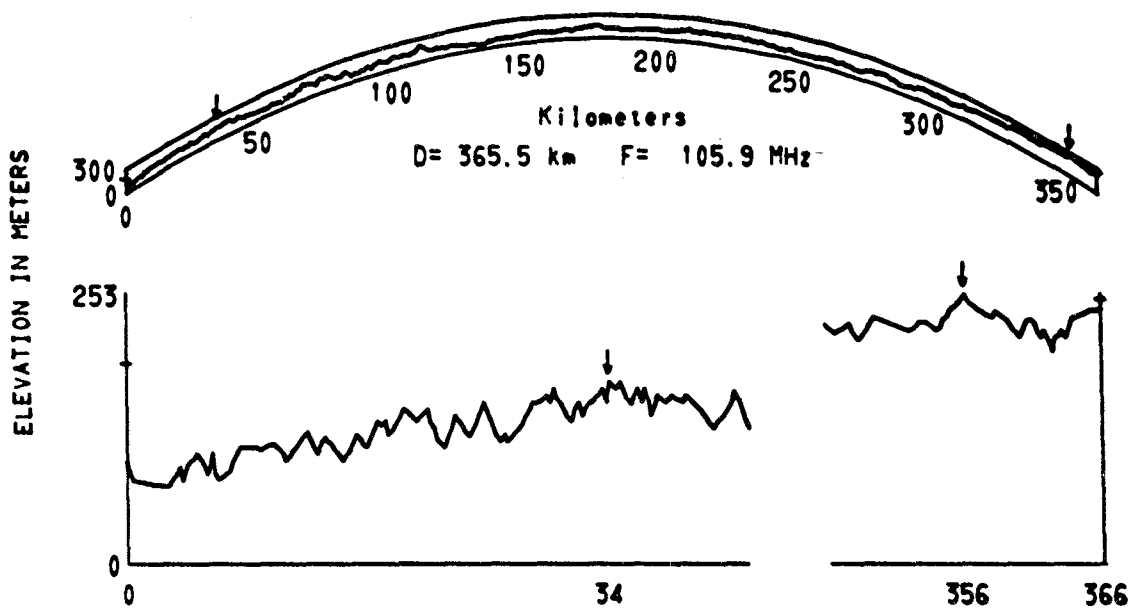


Figure 3.52 Path 9

CHEYENNE MTN S COLO - GARDEN CITY KANS
 PATHS 256 276 296 316 317

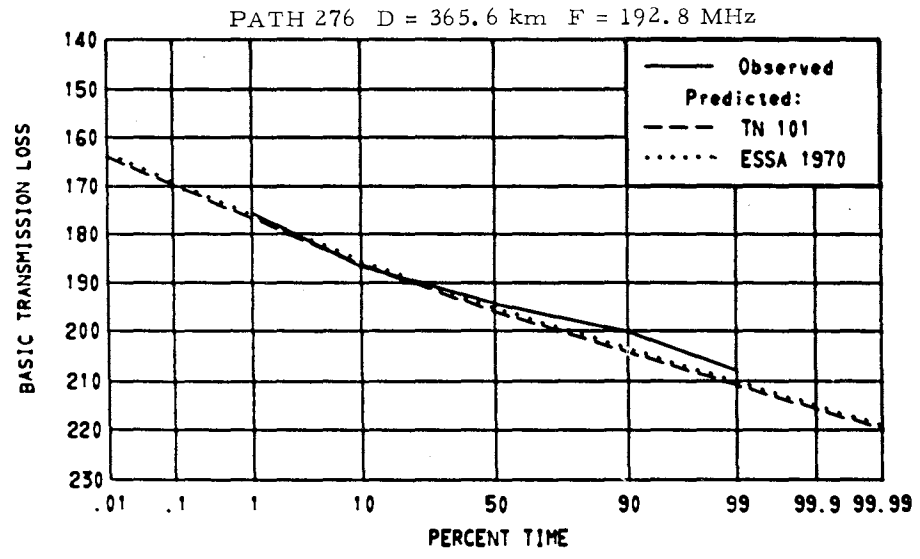
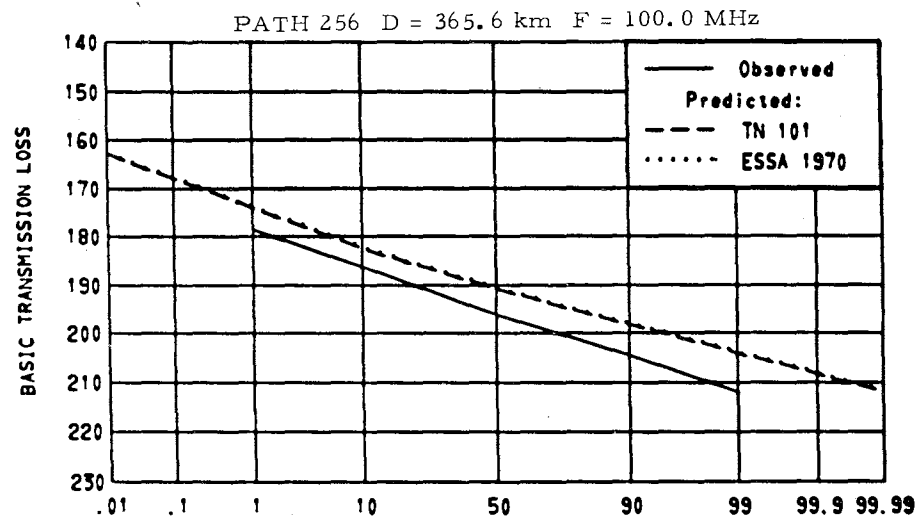
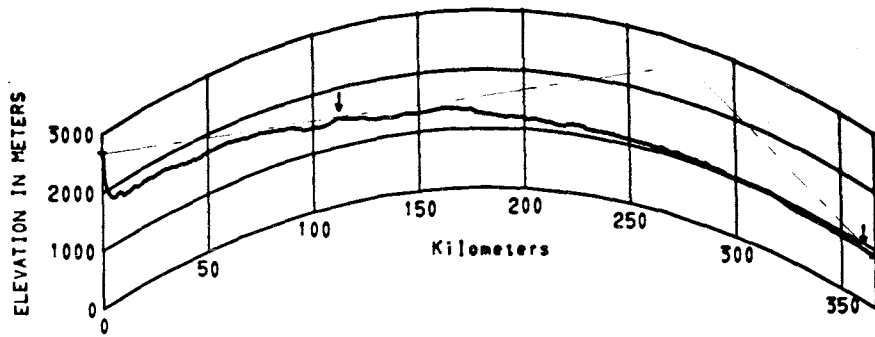
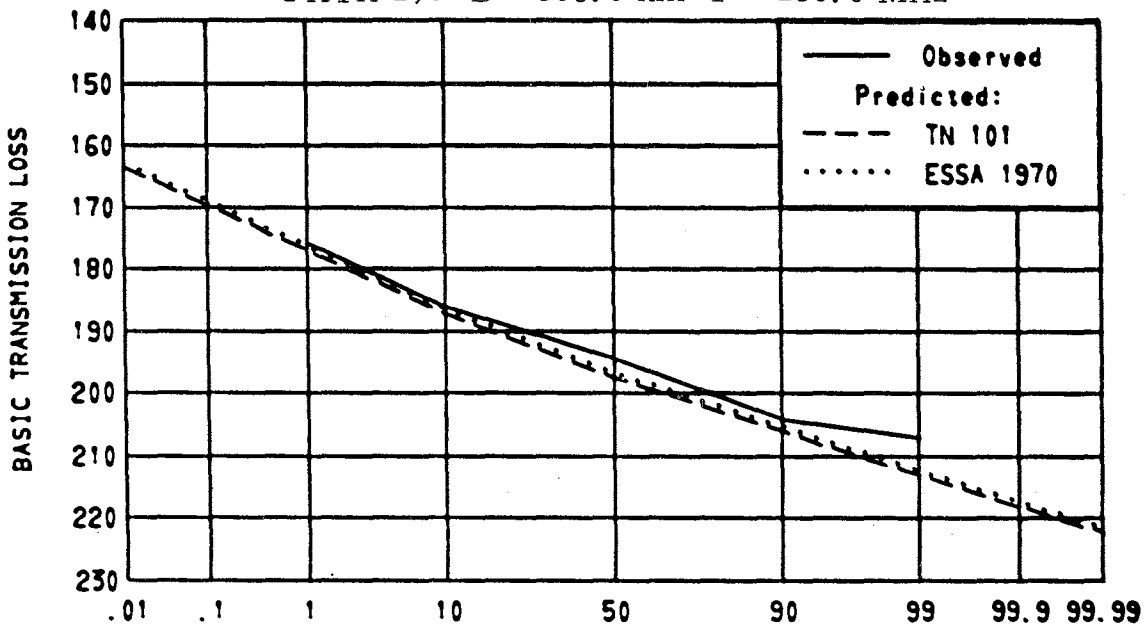


Figure 3.53 Paths 256 276

CHEYENNE MTN S COLO - GARDEN CITY KANS

PATH 296 D = 365.6 km F = 230.0 MHz



PATHS 316 317 D = 365.6 km F = 1046.0 MHz

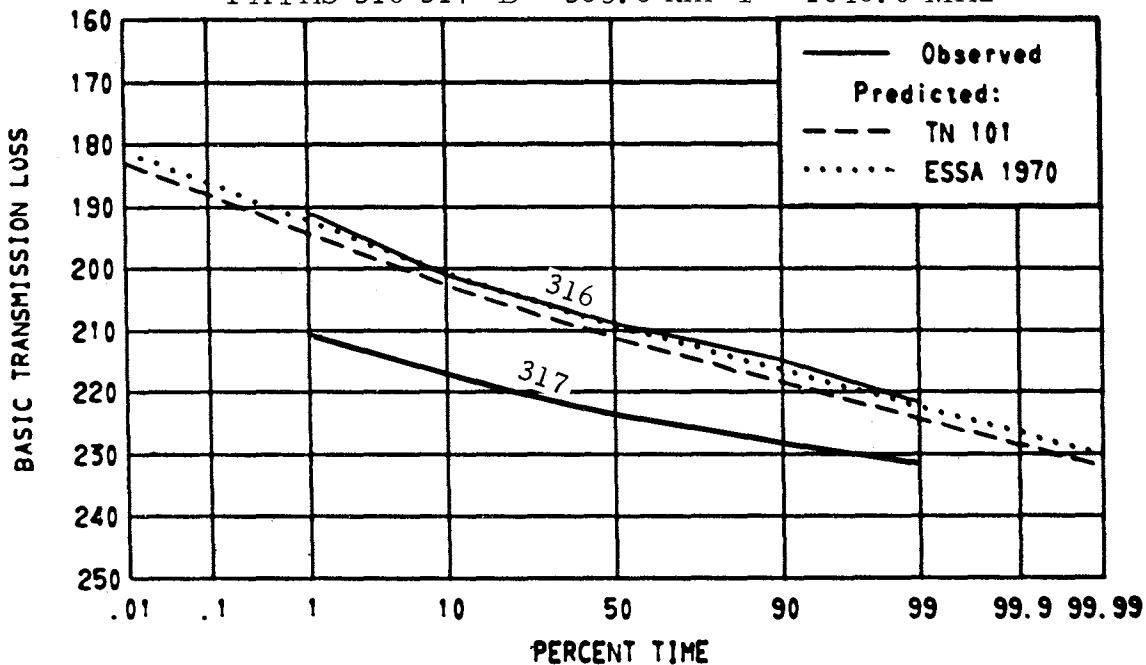
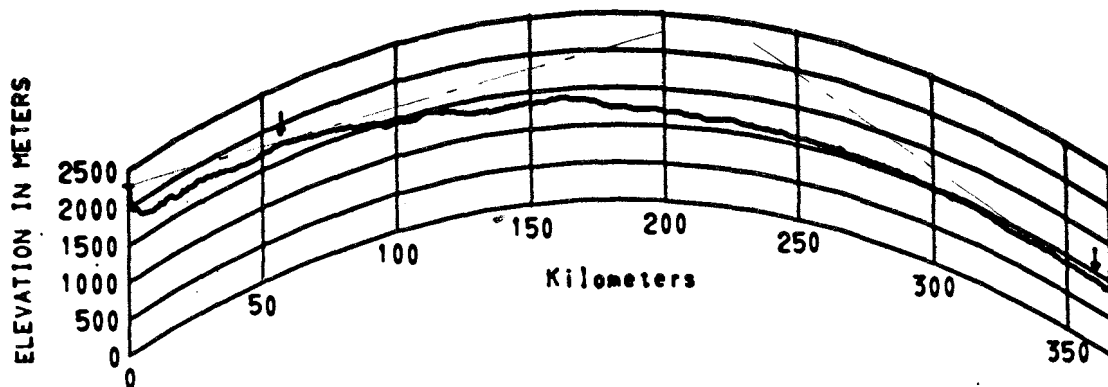


Figure 3.54 Paths 296 316 317

CHEYENNE MTN B COLO - GARDEN CITY KANS
 PATHS 336 356 376



PATH 336 D = 365.7 km F = 92.0 MHz

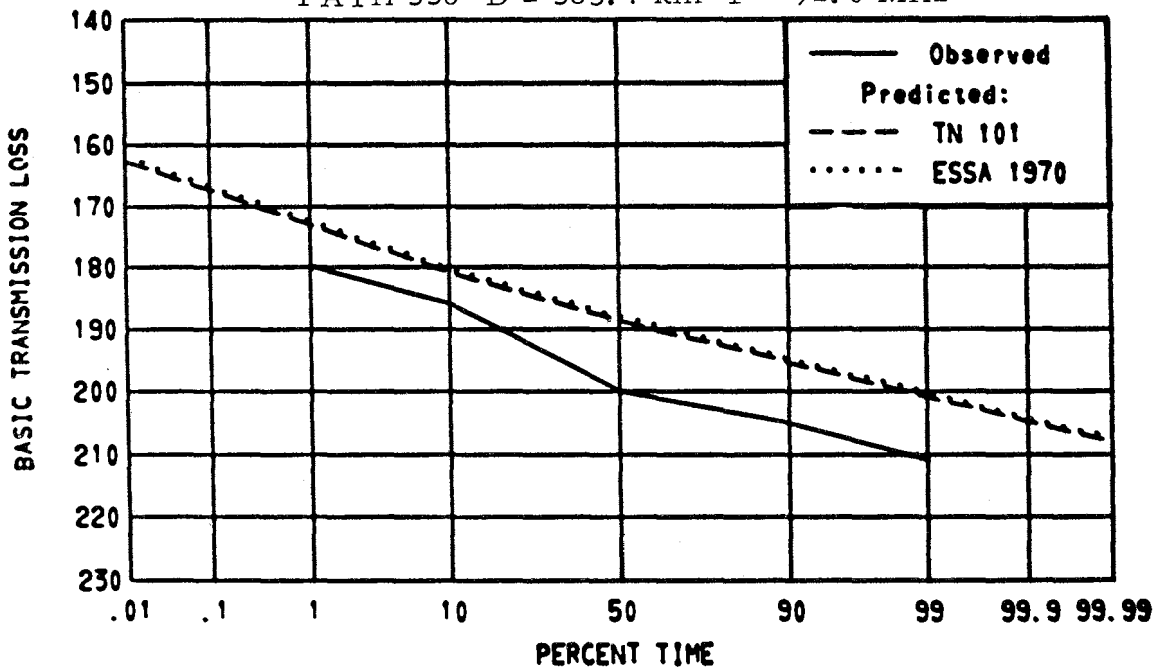


Figure 3.55 Path 336

CHEYENNE MTN B COLO - GARDEN CITY KANS

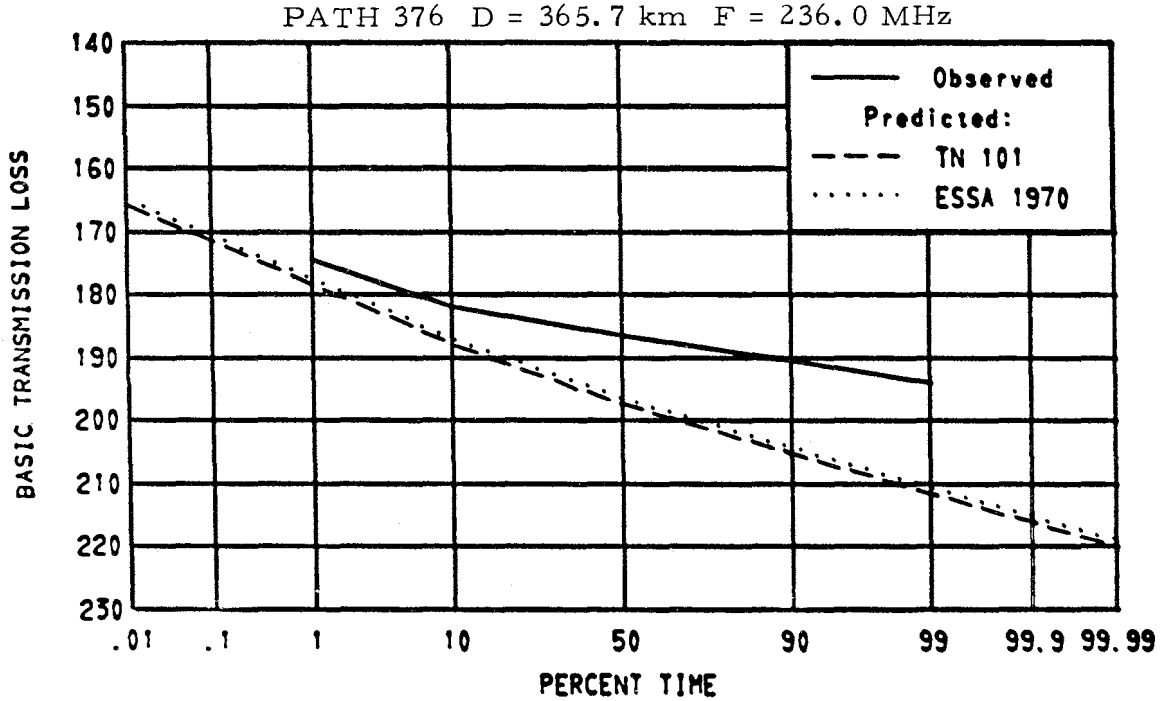
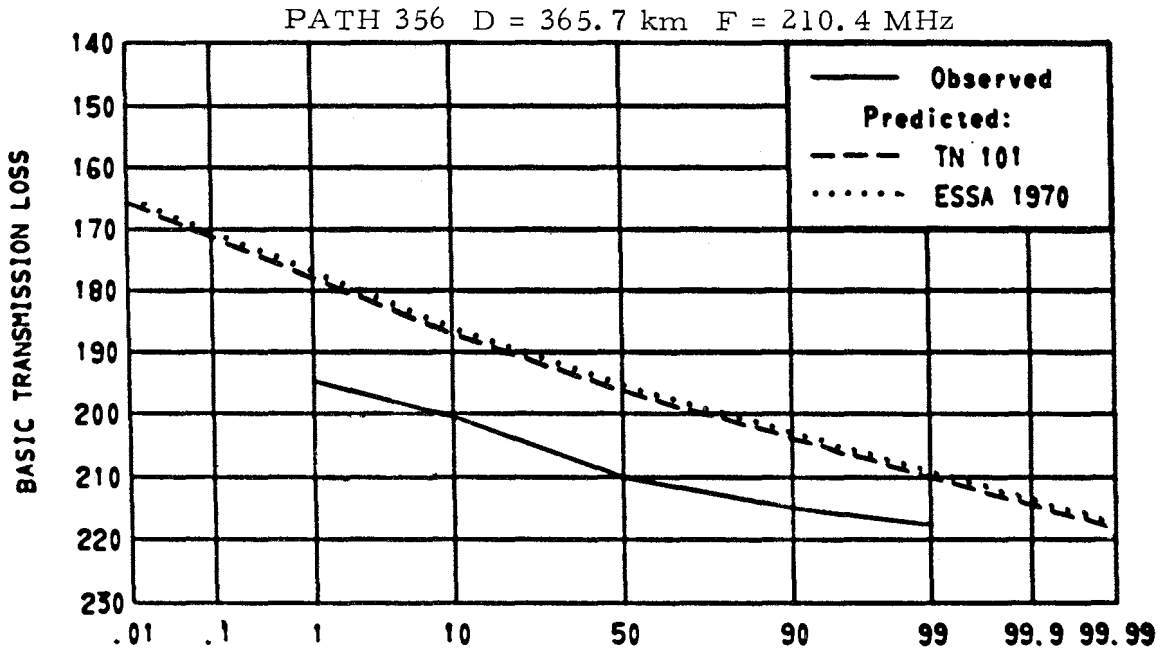


Figure 3.56 Paths 356 376

PATH 1716 BENSON ARIZ - TELEGRAPH PASS ARIZ

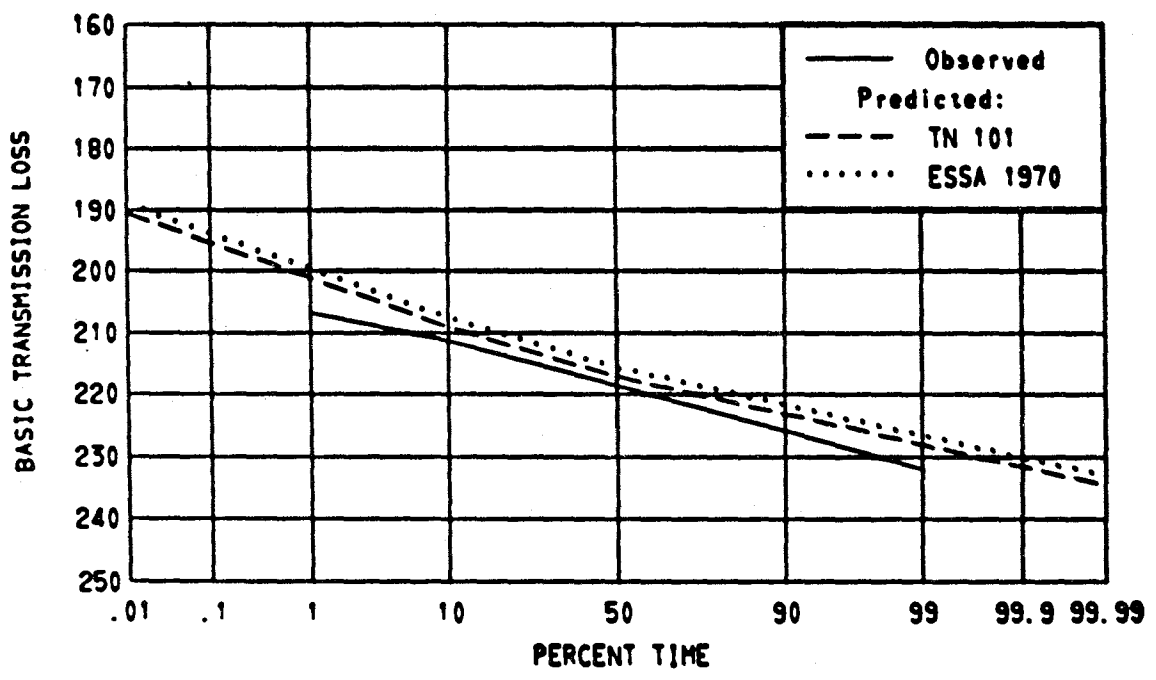
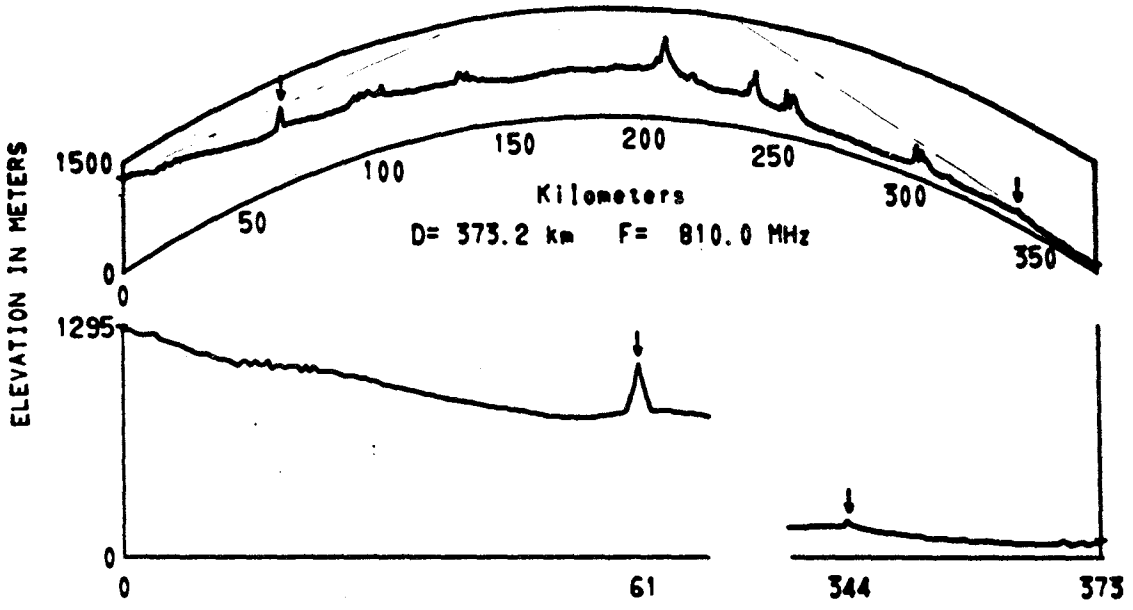


Figure 3.57 Path 1716

PATH 429 PIKES PEAK COLO - GARDEN CITY KANS

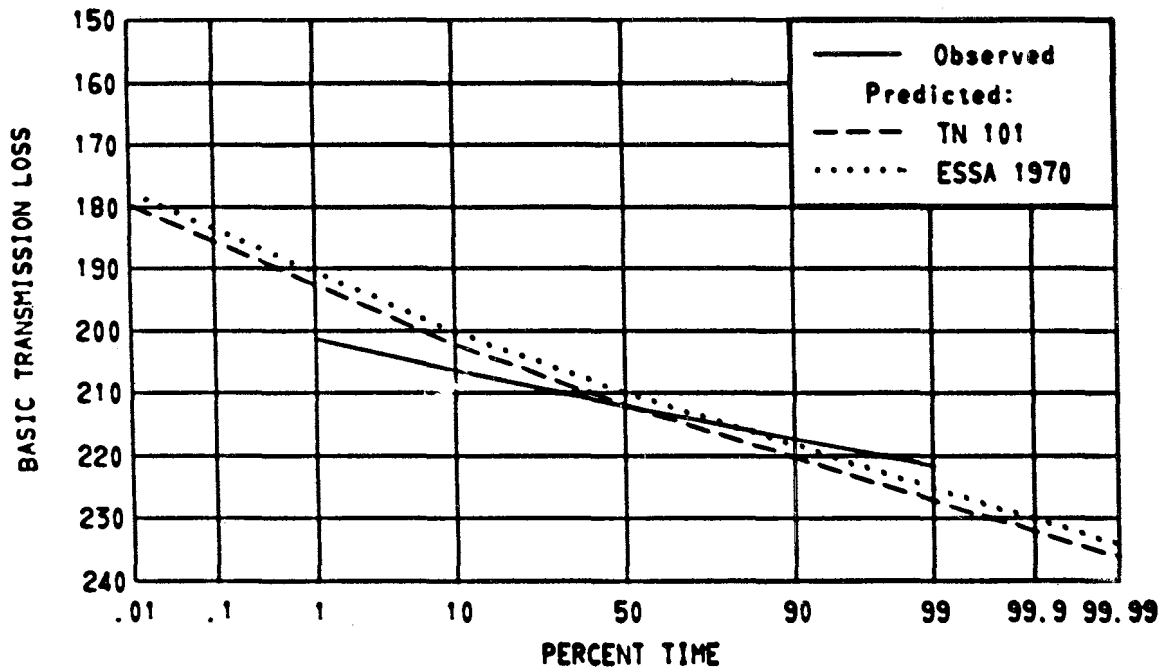
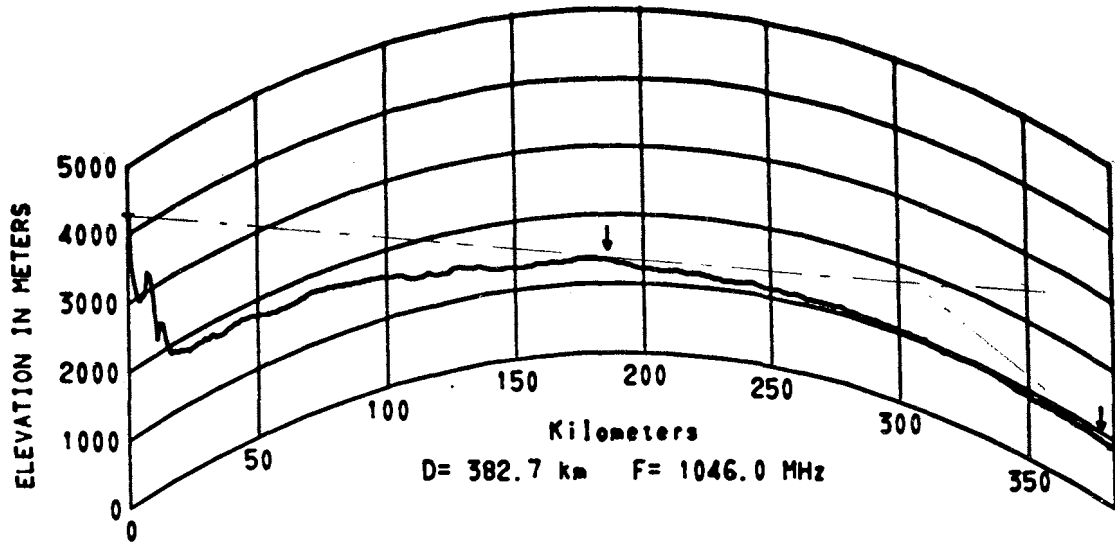


Figure 3.58 Path 429

PATH 480 LEXINGTON MASS - SYRACUSE N Y

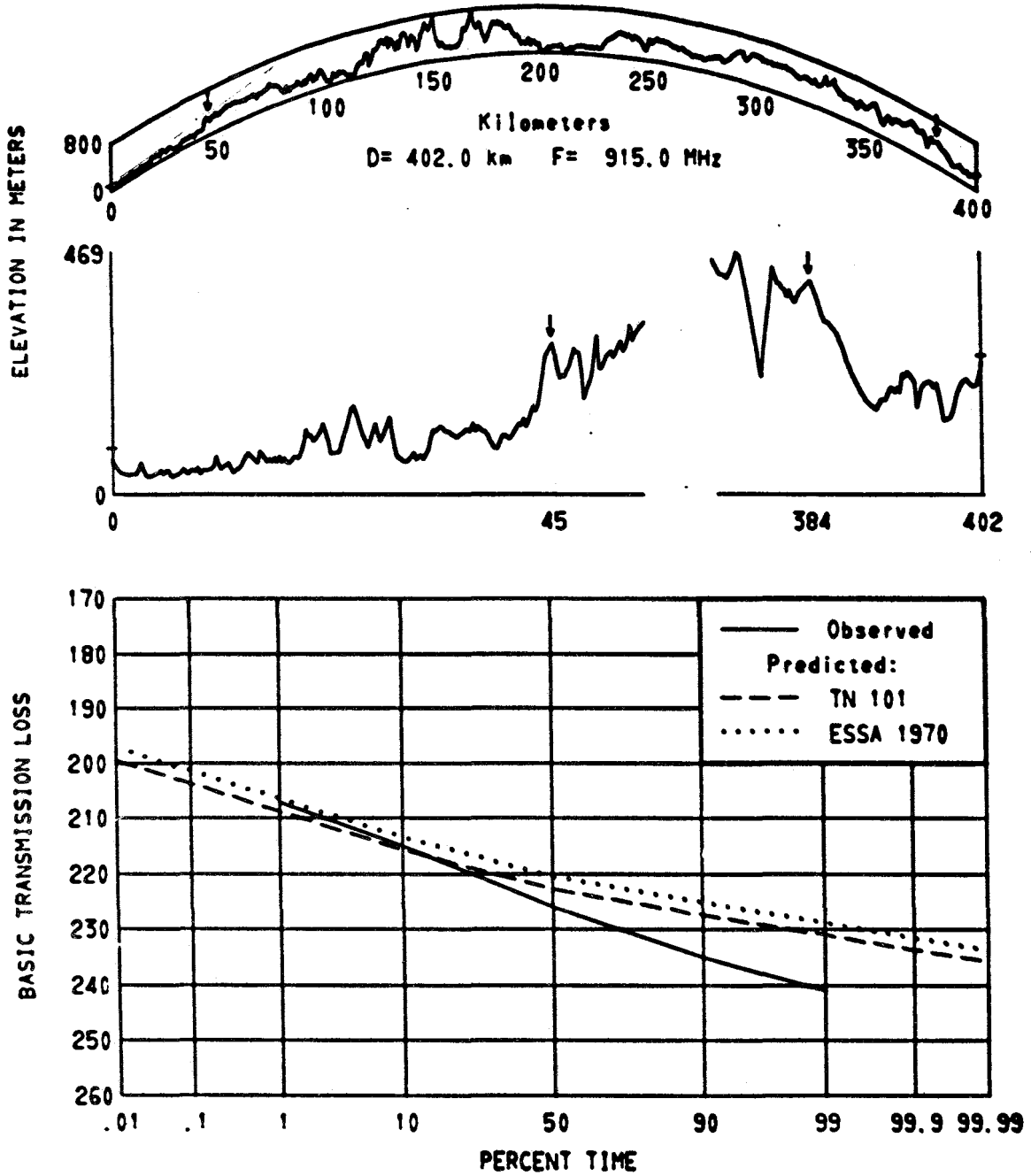


Figure 3.59 Path 480

PATH 1805 VERONA N Y - LIBERTY DAM MD

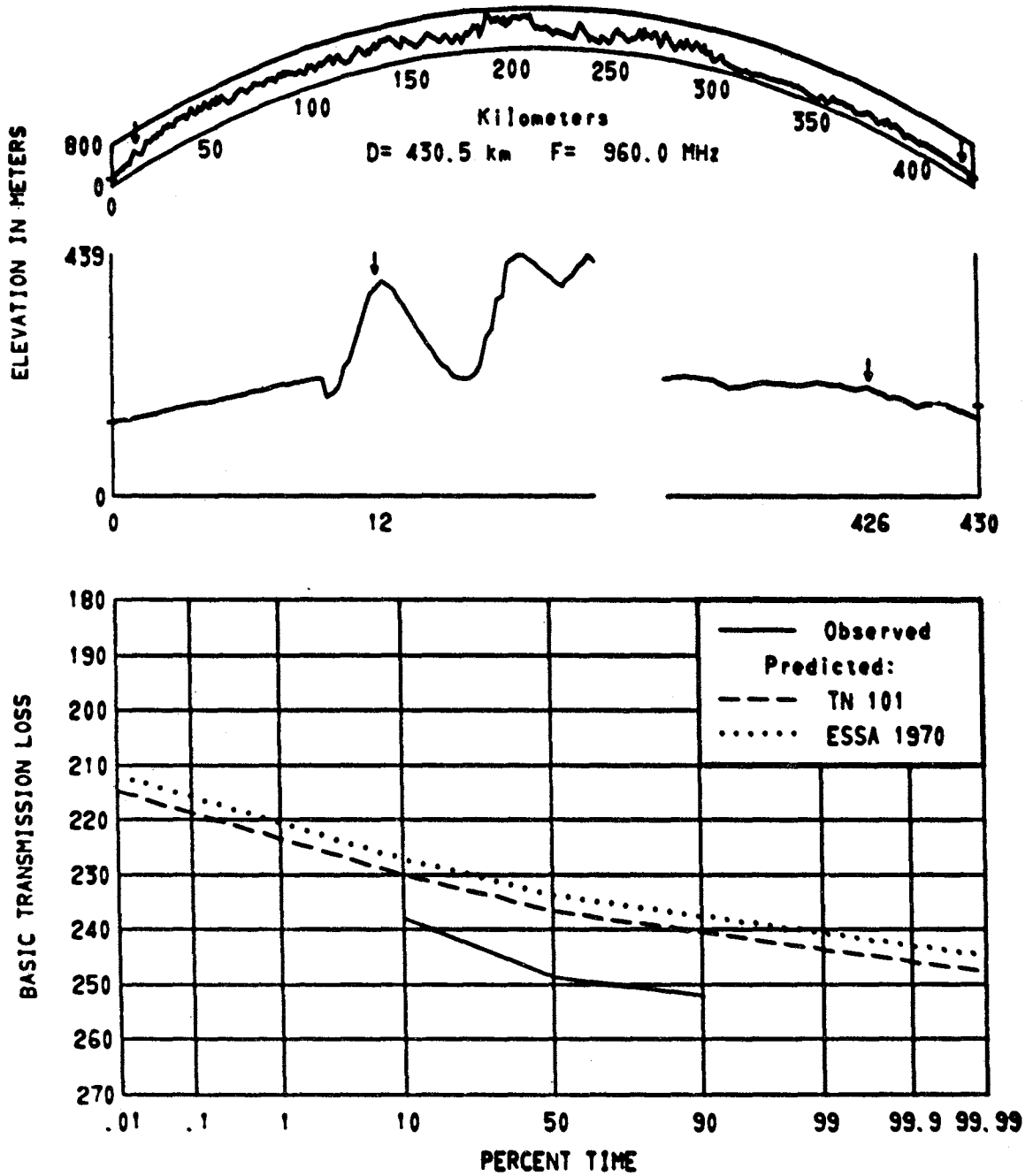


Figure 3.60 Path 1805

PATH 18 SHREVEPORT LA - AUSTIN TEXAS

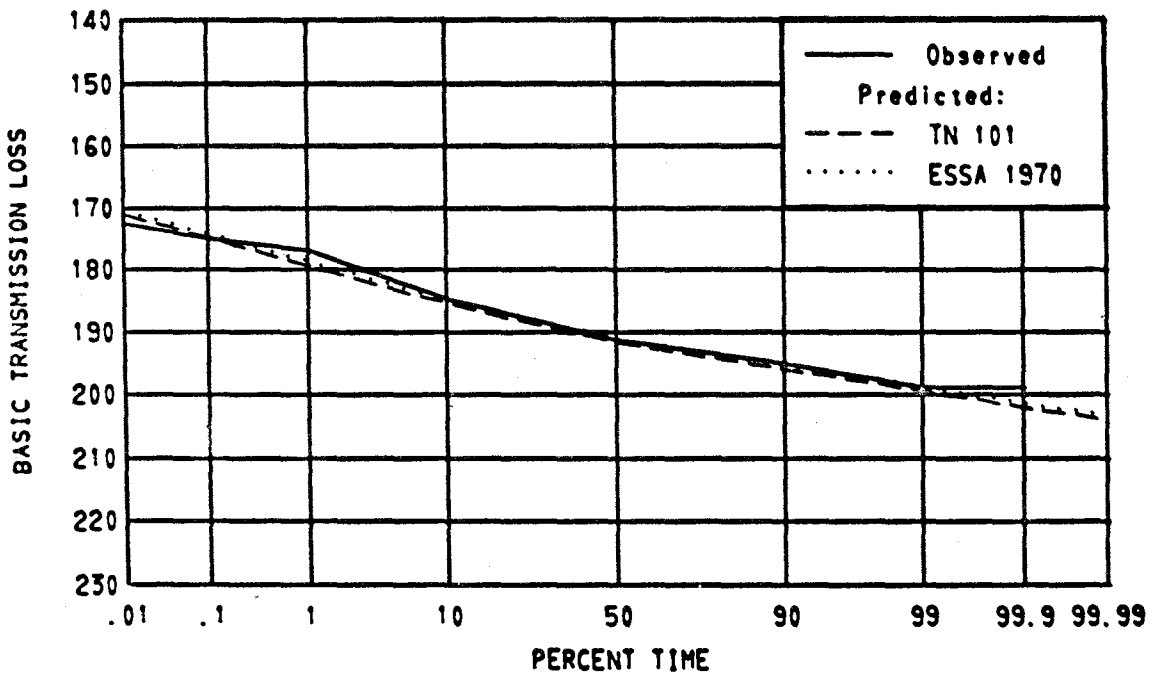
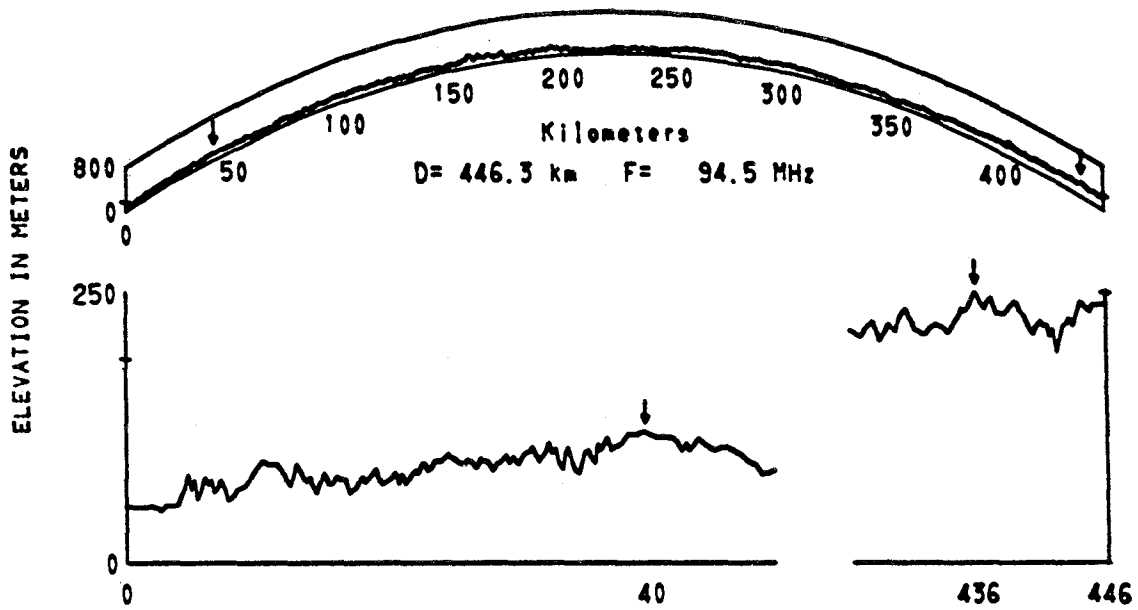


Figure 3.61 Path 18

PATH 1717 BENSON ARIZ - BELEN NEW MEX

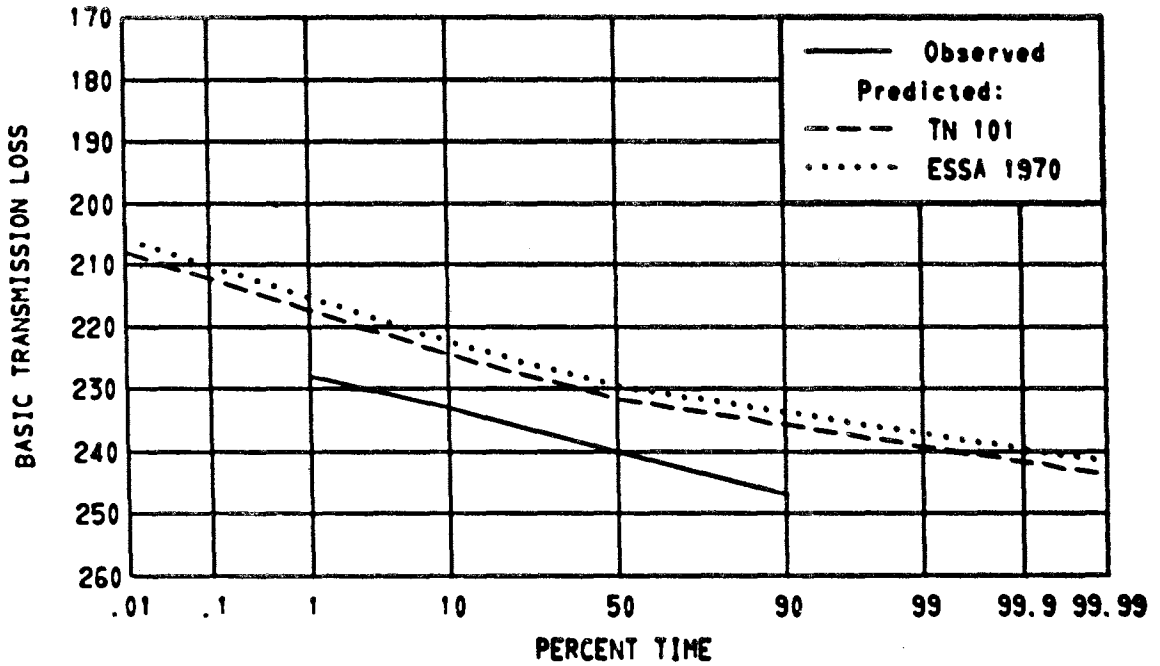
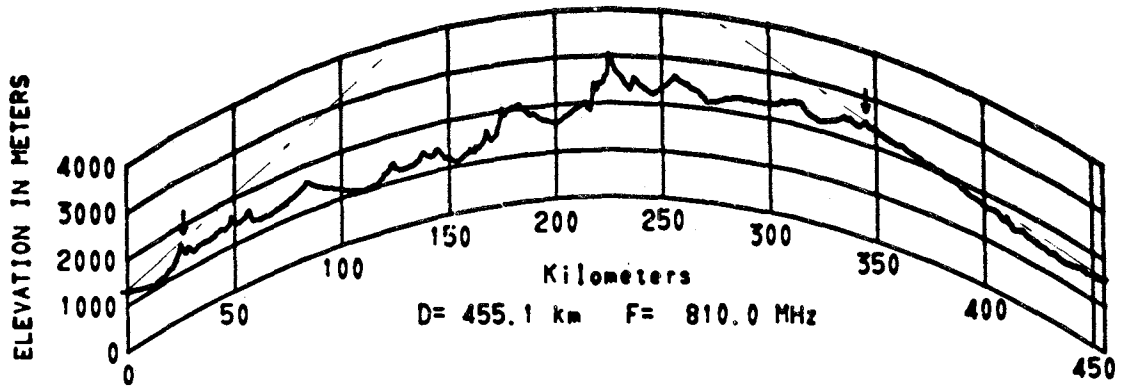


Figure 3.62 Path 1717

PATH 576 COVEY HILL CAN - RIVERHEAD N Y

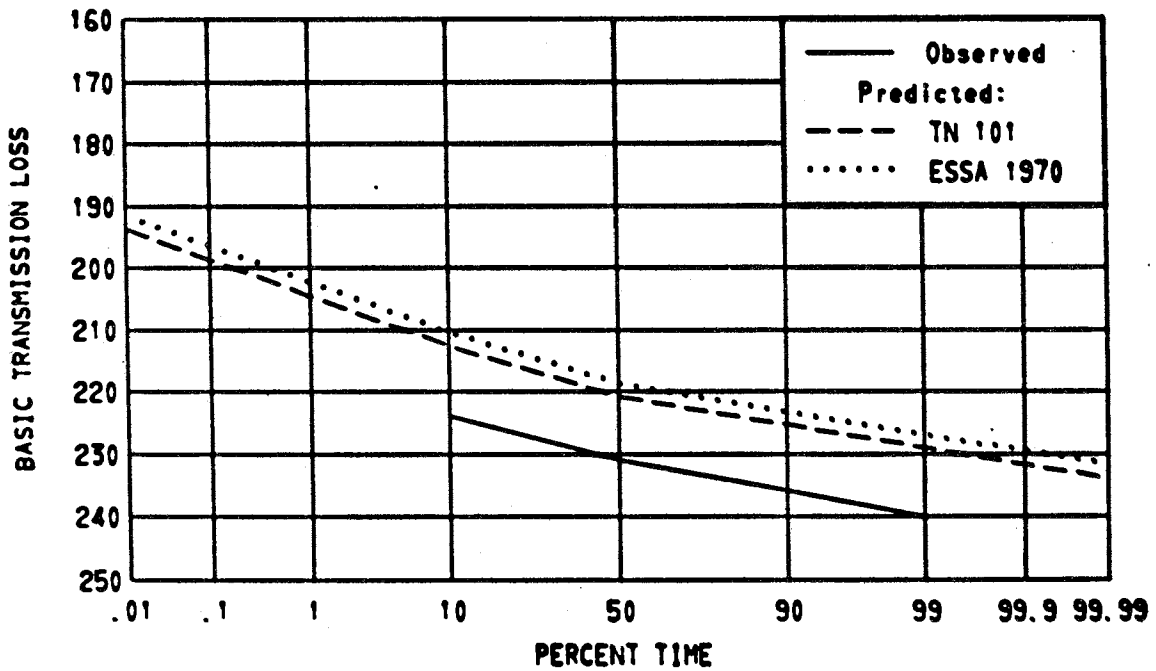
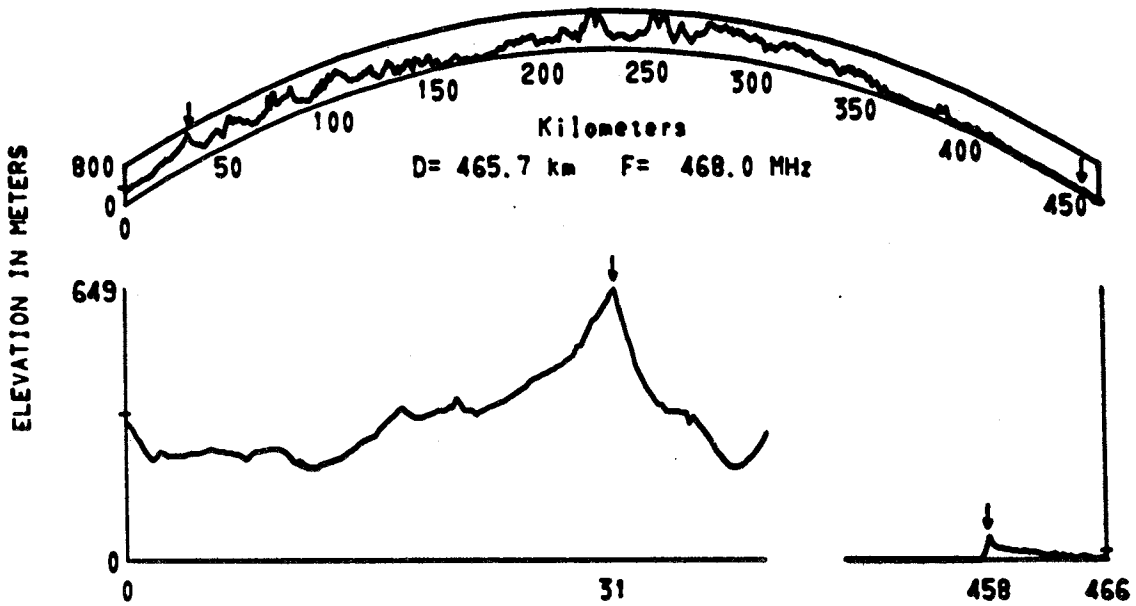


Figure 3.63 Path 576

PATH 26 MOBILE ALA - POWDER SPRINGS GA

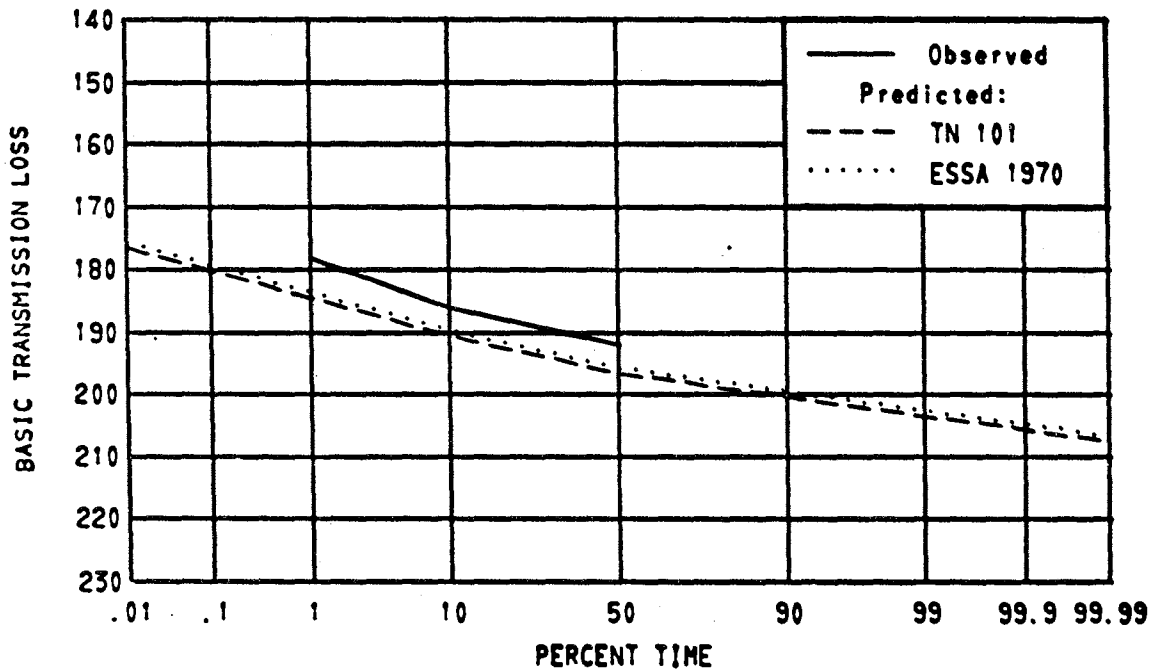
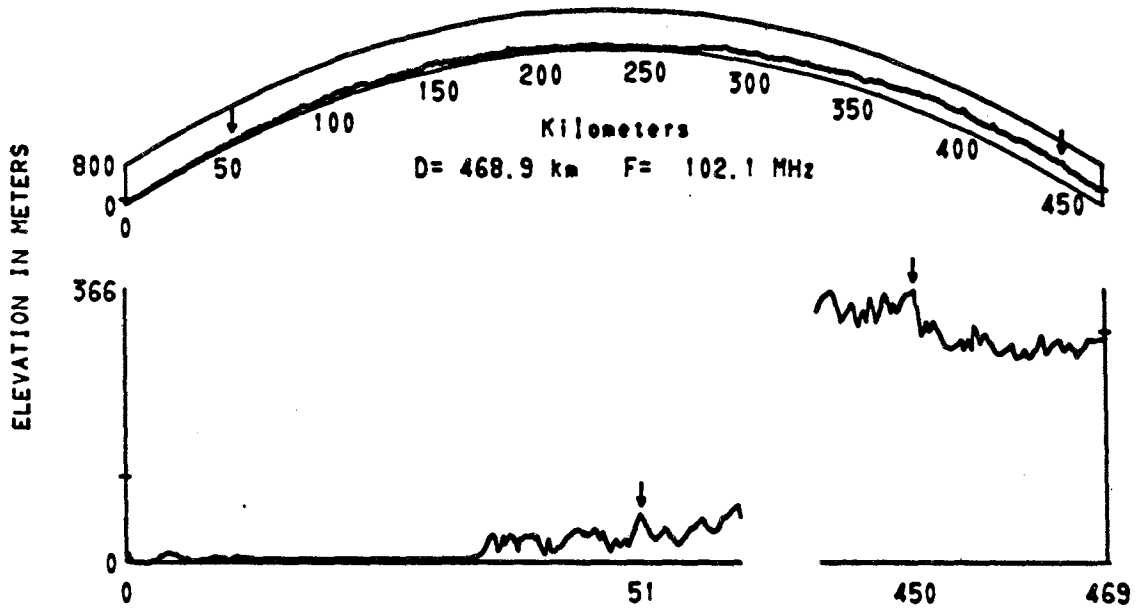
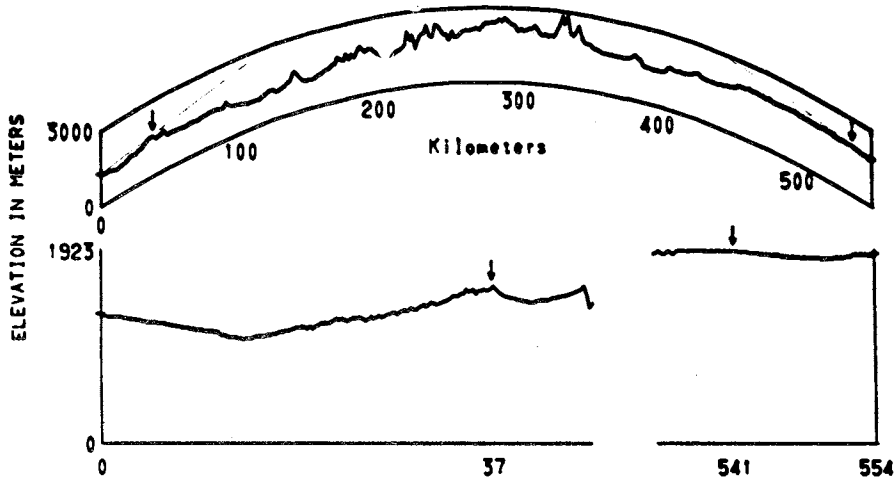
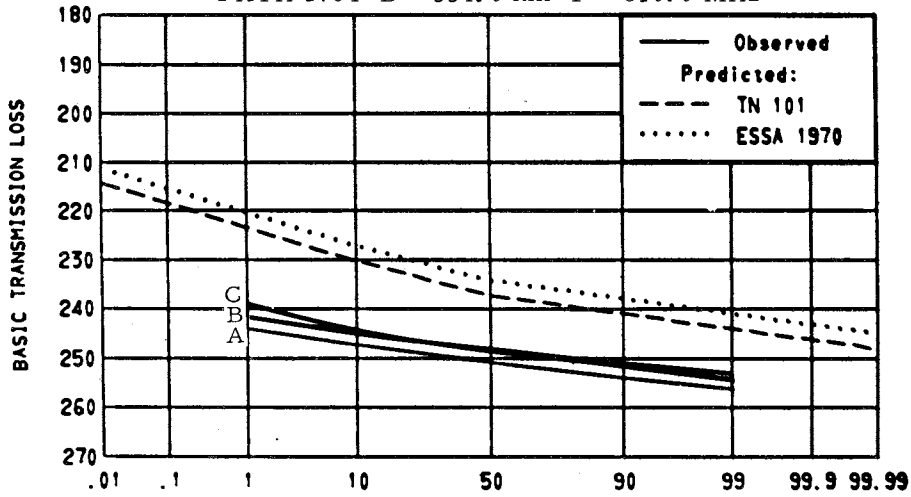


Figure 3.64 Path 26

PATHS 1704 1705 BENSON ARIZ - ENCINO NEW MEX



PATH 1704 D = 554.0 km F = 810.0 MHz



PATH 1705 D = 554.0 km F = 810.0 MHz

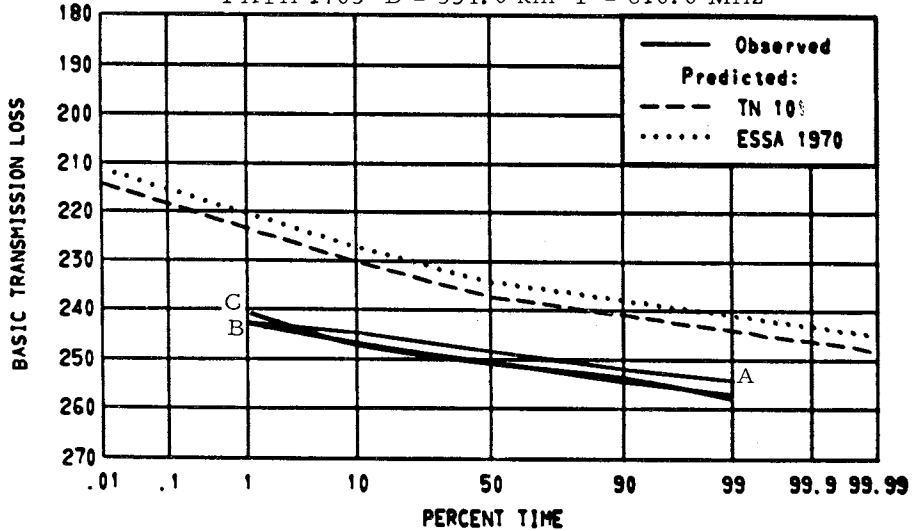


Figure 3.65 Paths 1704 1705

PATH 398 FT CARSON COLO - ANTHONY KANS

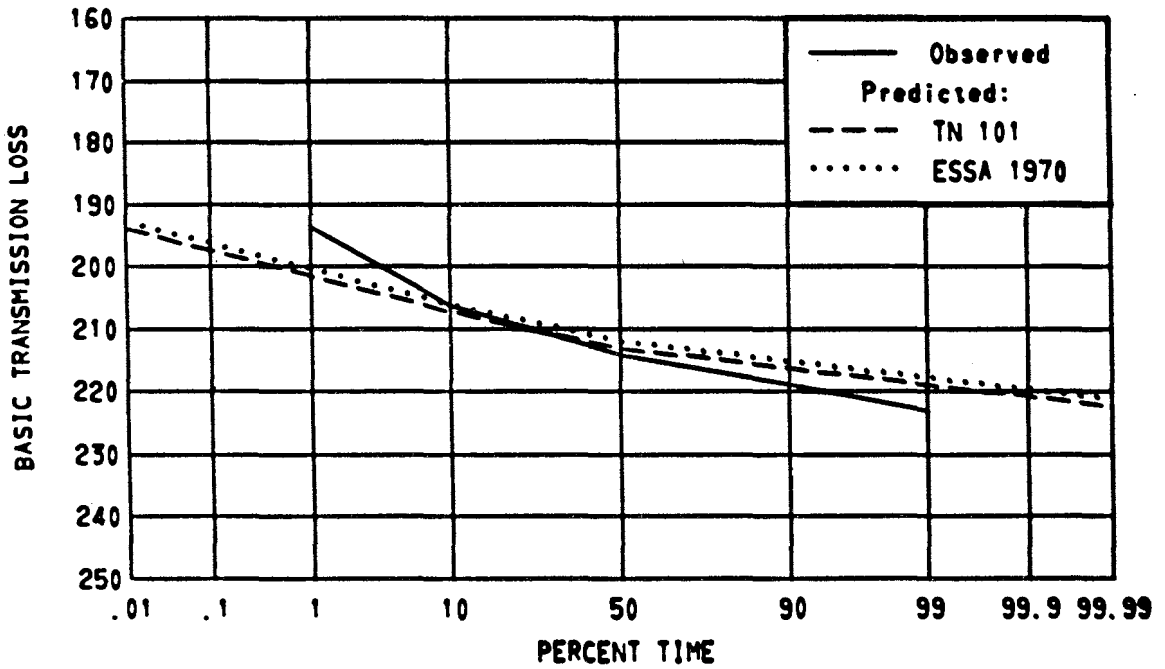
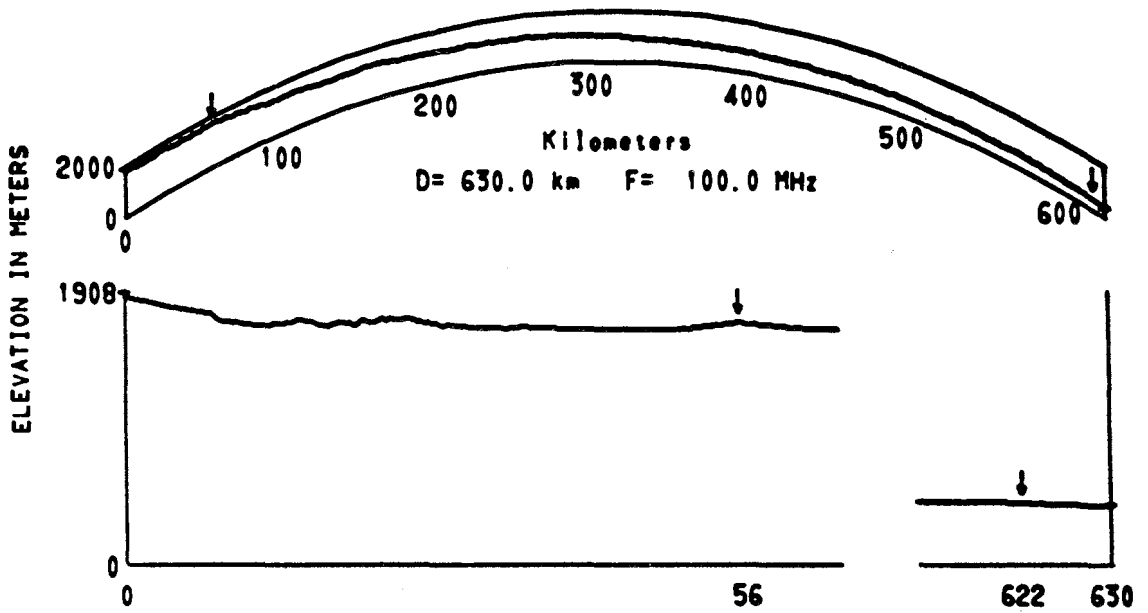


Figure 3.66 Path 398

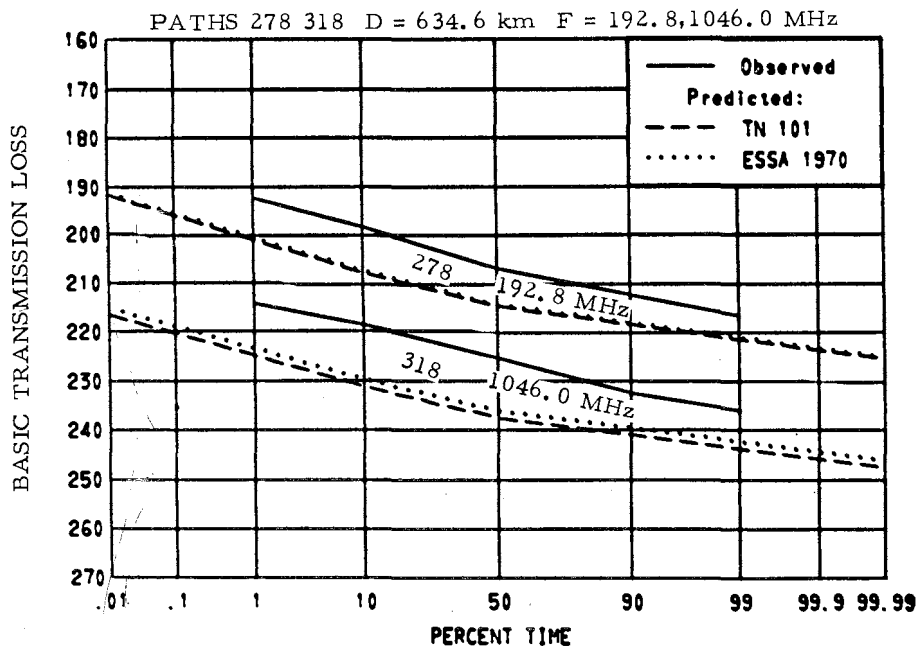
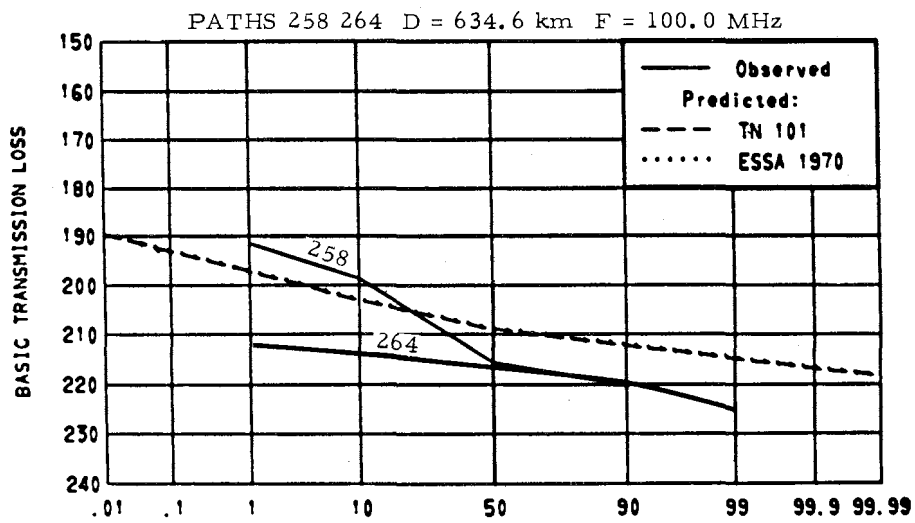
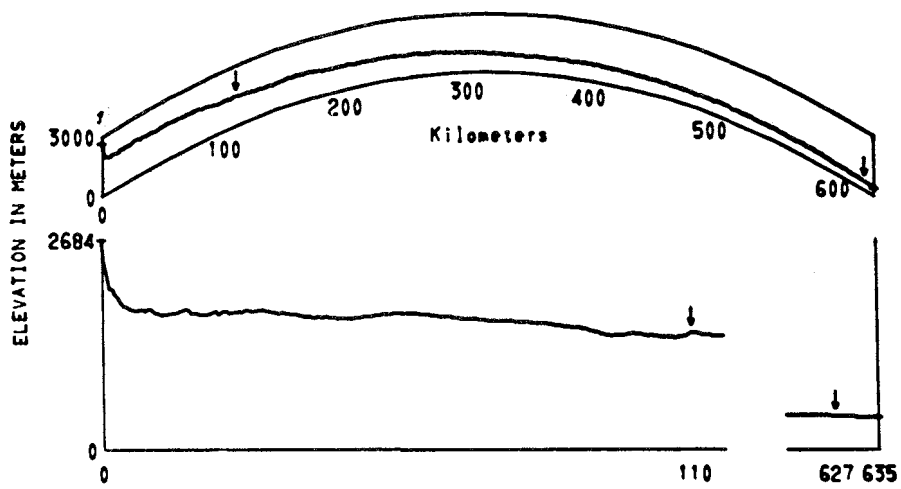
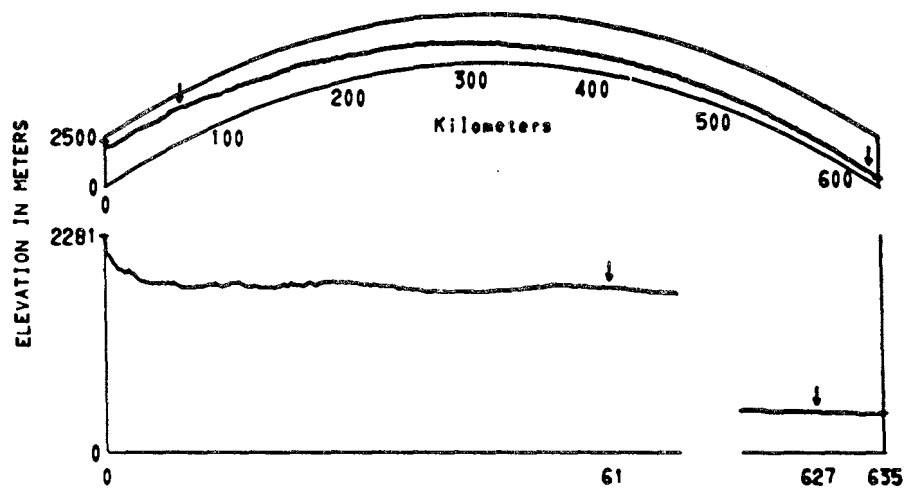
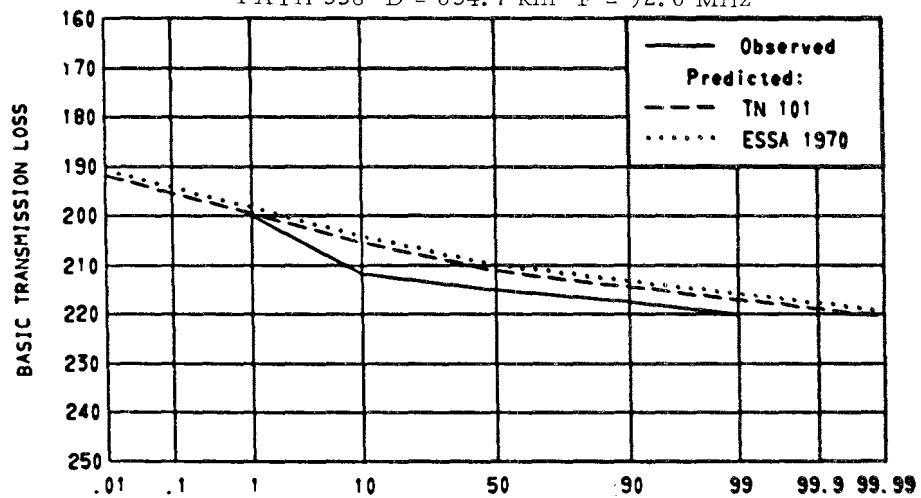


Figure 3.67 Paths 258 264 278 318

PATHS 338 358 CHEYENNE MTN B COLO - ANTHONY KANS



PATH 338 D = 634.7 km F = 92.0 MHz



PATH 358 D = 634.7 km F = 210.4 MHz

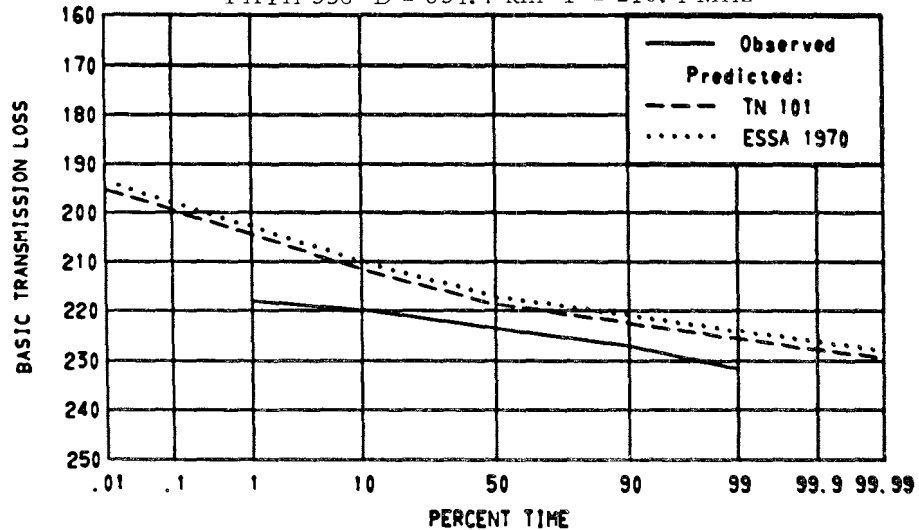


Figure 3.68 Paths 338 358

PATHS 1708 TO 1711 BENSON ARIZ - SANTA ROSA NEW MEX

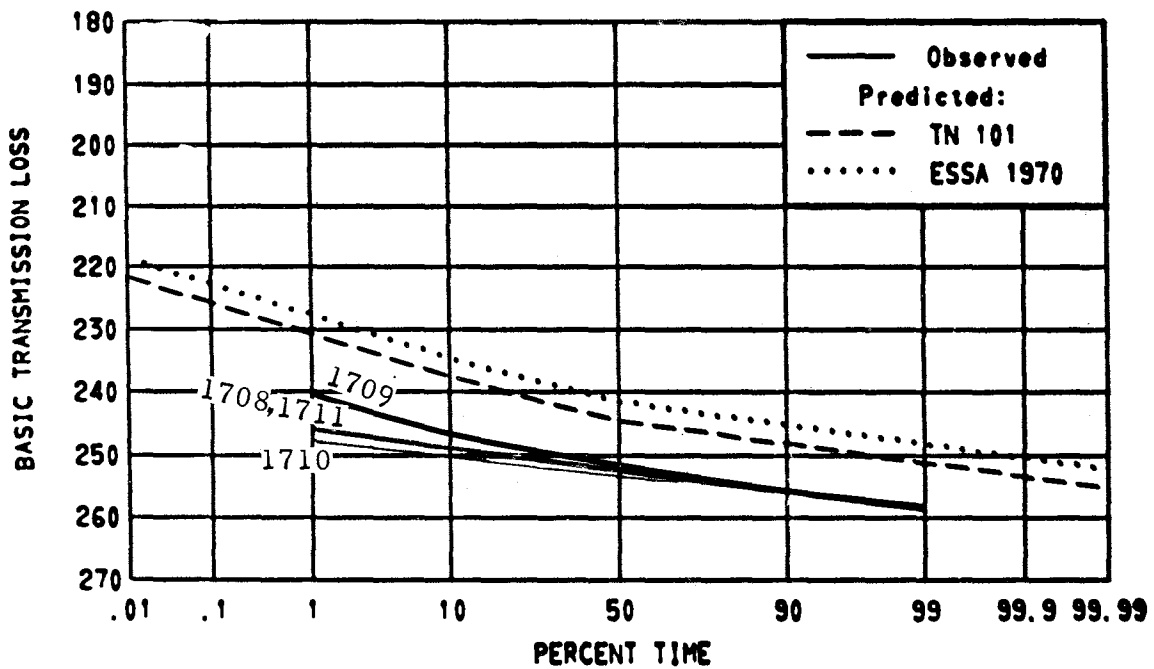
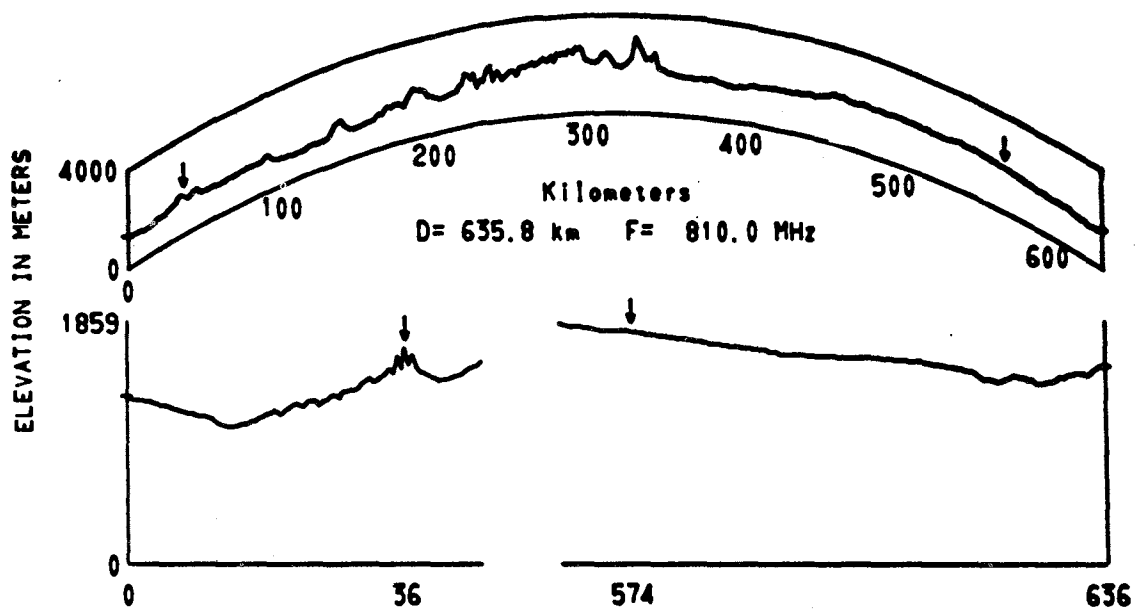


Figure 3.69 Paths 1708 to 1711

PATH 260 CHEYENNE MTN S COLO - FAYETTEVILLE ARK

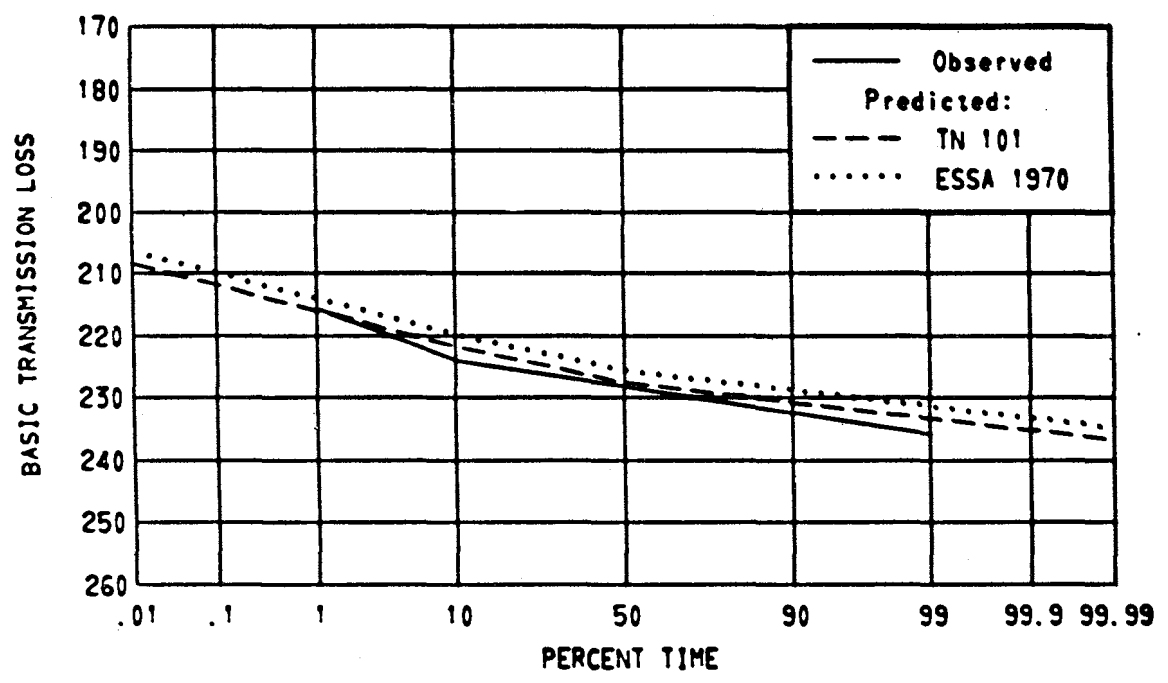
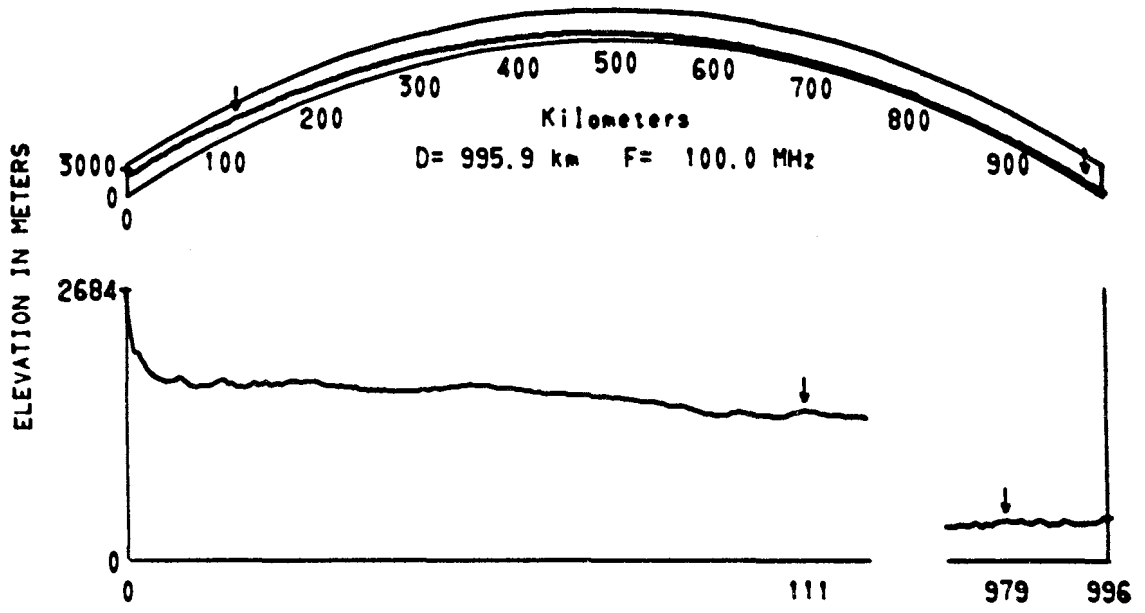


Figure 3.70 Path 260

PATH 900 ROUND HILL MASS - WINSTON-SALEM N C

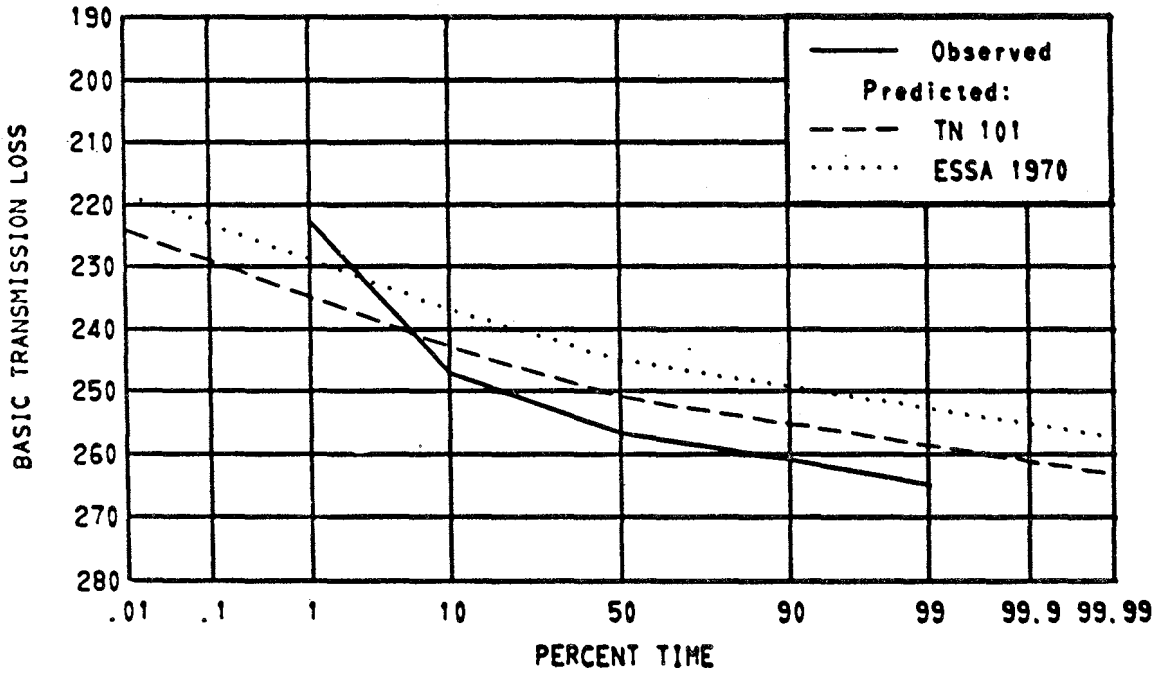
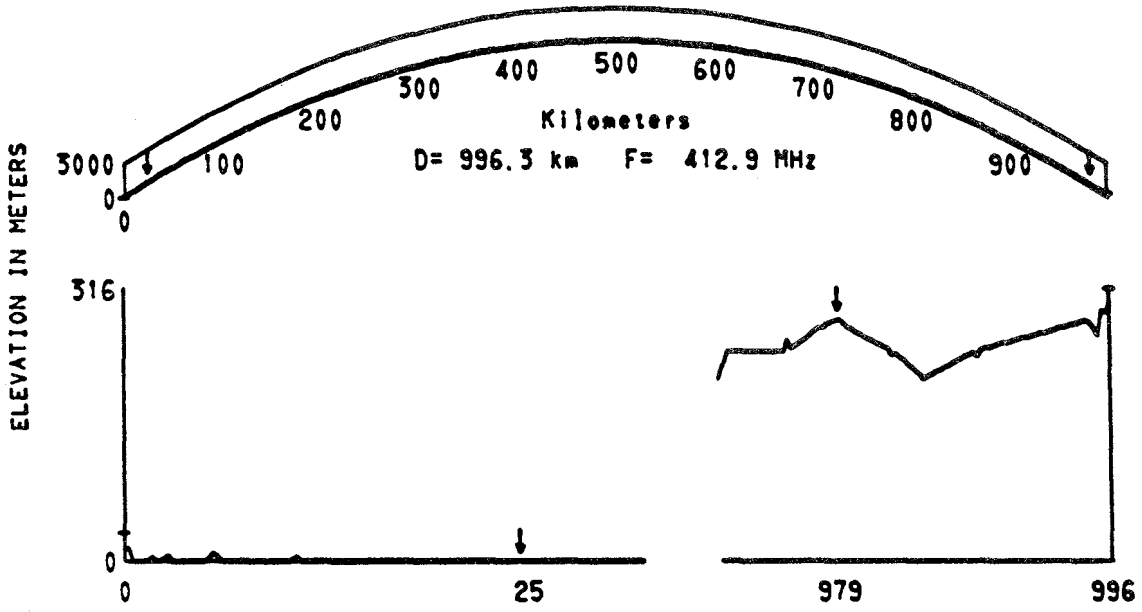


Figure 3.71 Path 900

PATH 1981 CRYSTAL PALACE ENG - BAWDSEY ENG

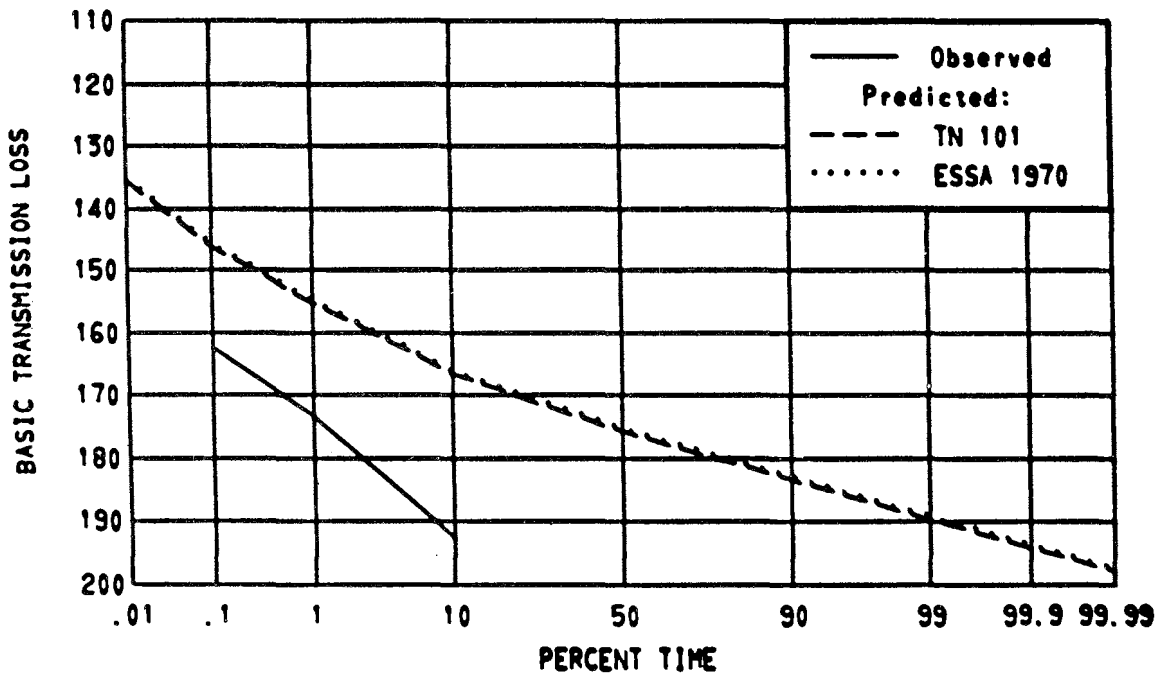
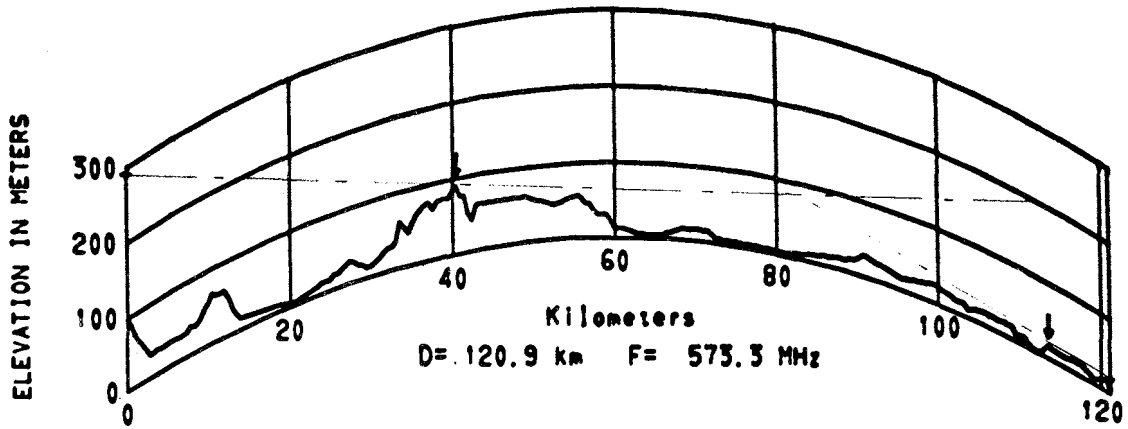


Figure 3.72 Path 1981

PATH 1982 CRYSTAL PALACE ENG - PETERBOROUGH ENG

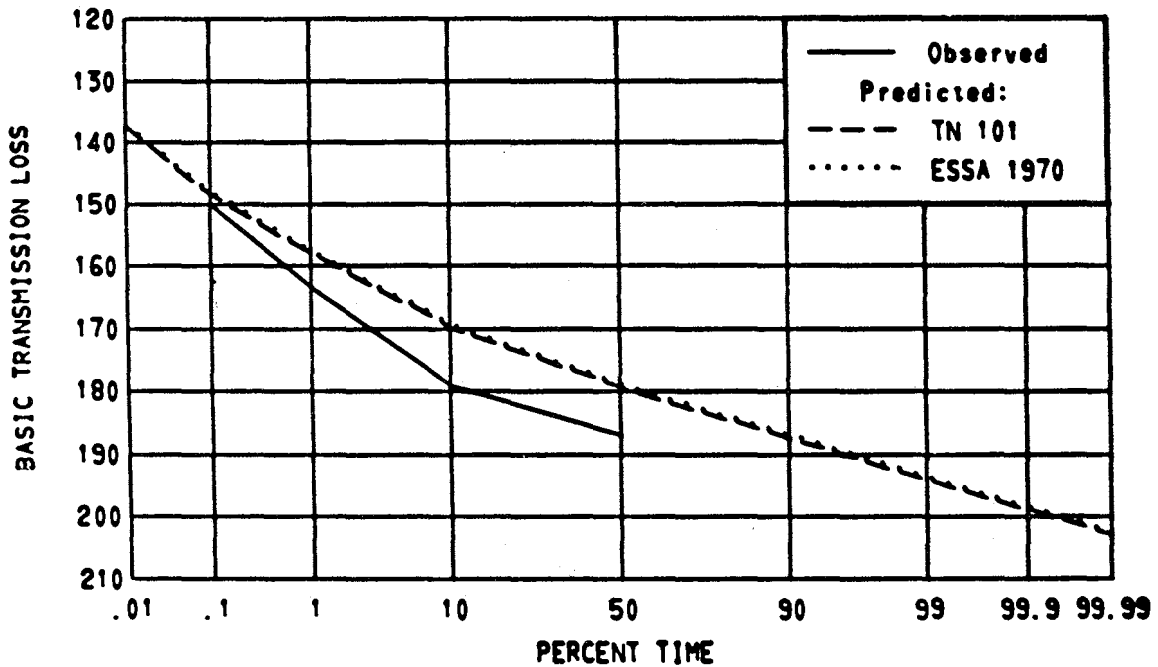
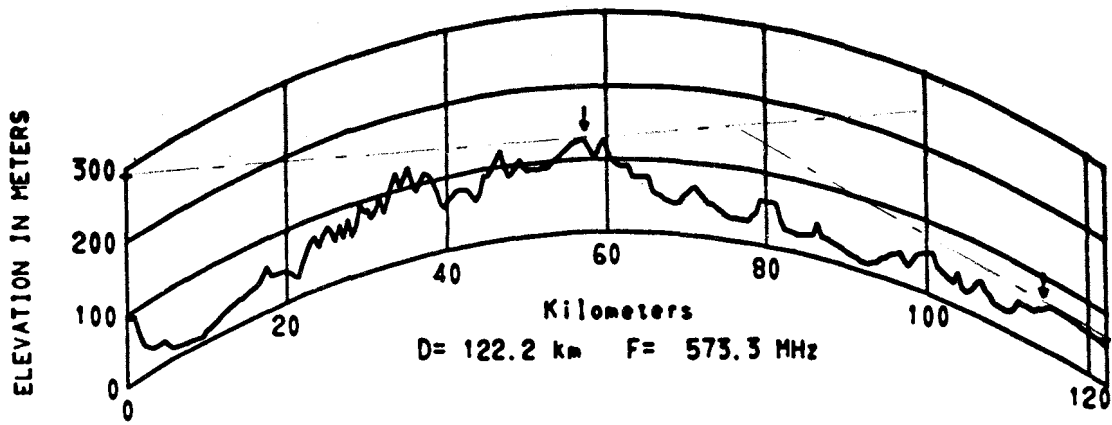


Figure 3.73 Path 1982

PATH 2101 PONTOP PIKE ENG - MOORSIDE EDGE ENG

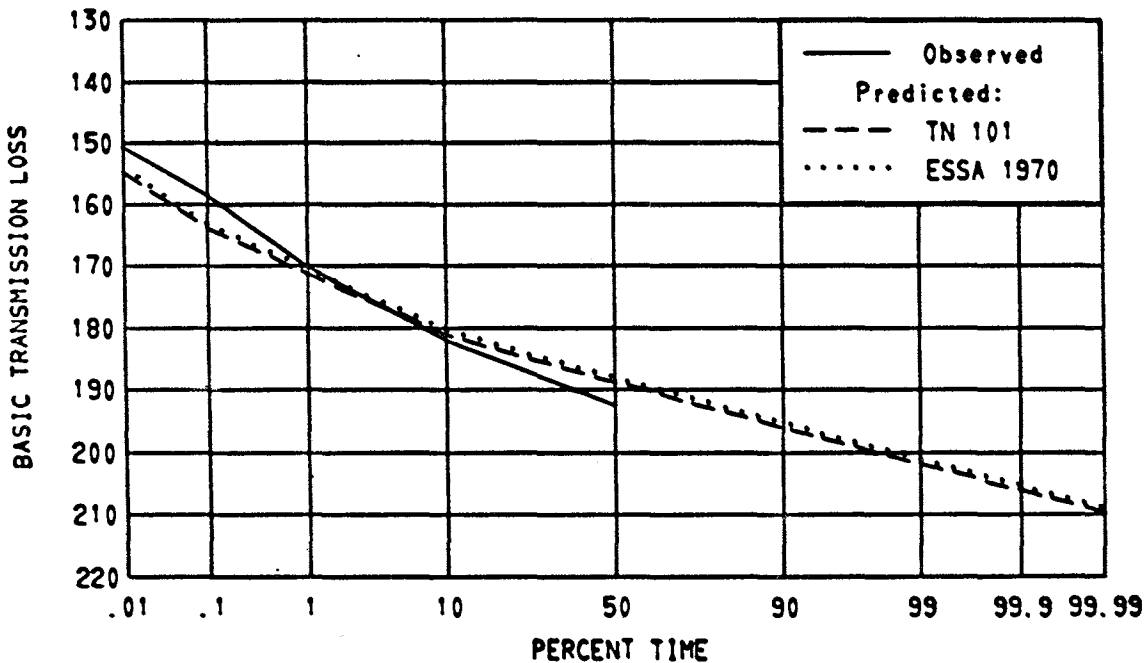
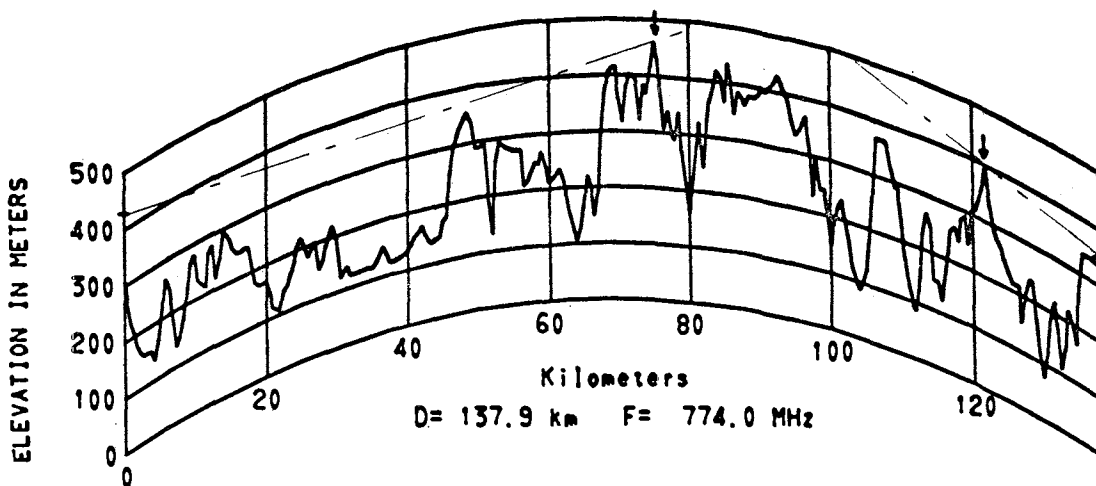


Figure 3.74 Path 2101

PATH 2173 SUTTON COLDFIELD ENG - CASTLETON WALES

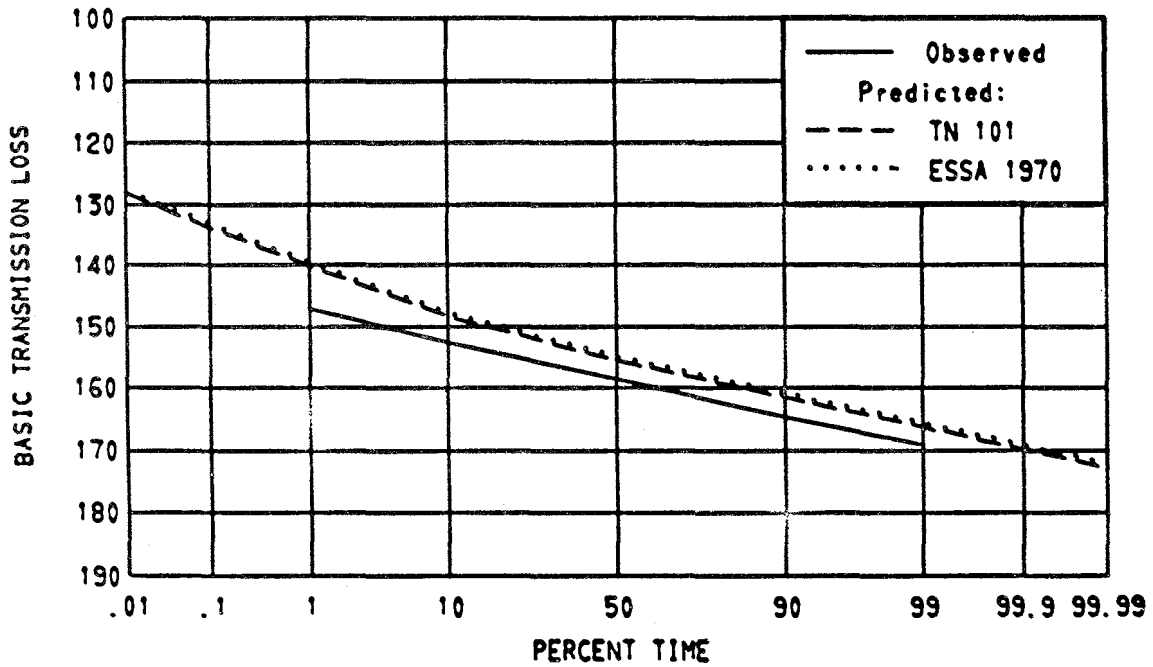
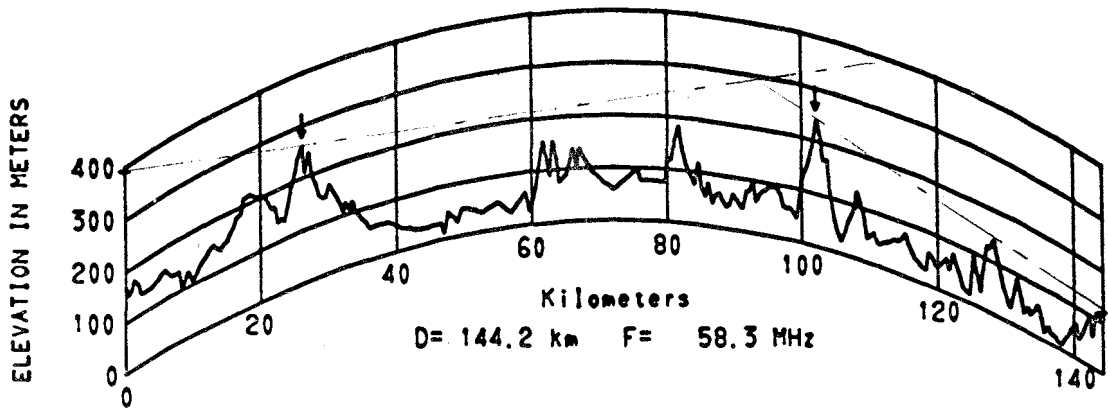
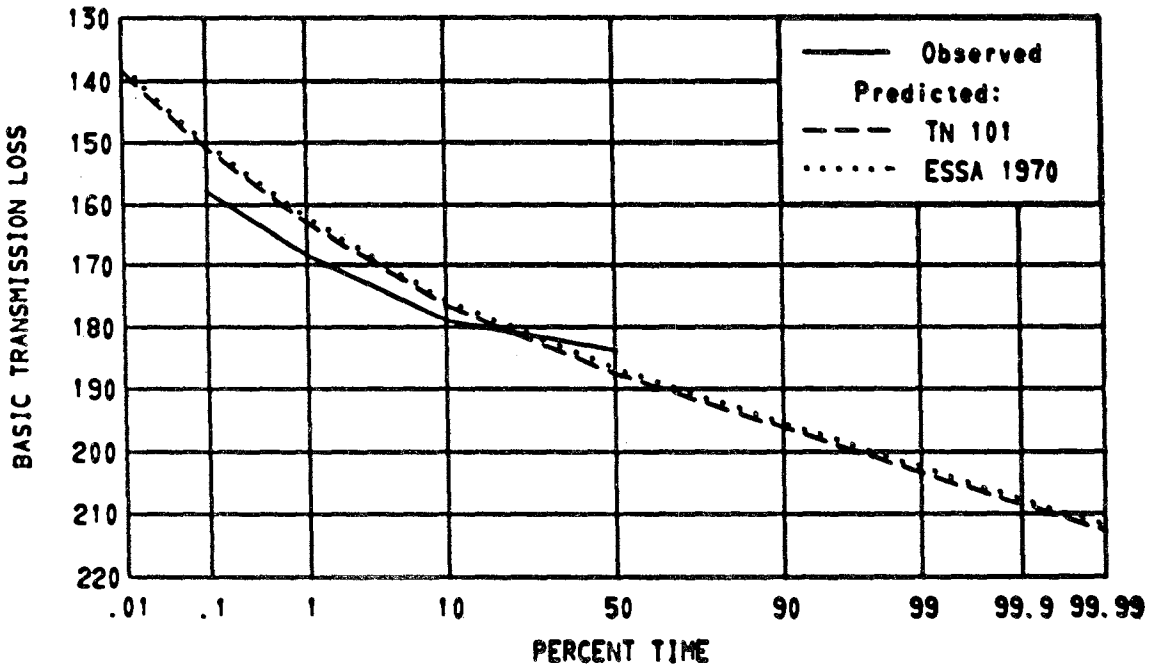
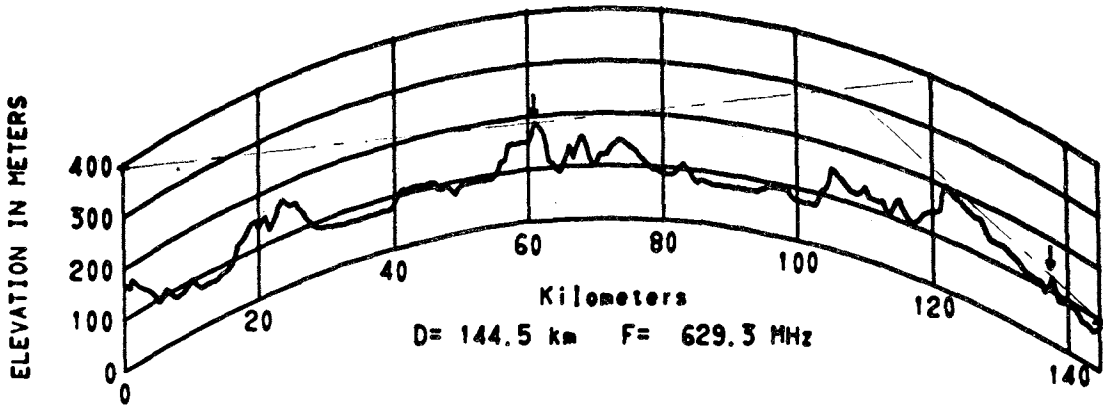


Figure 3.75 Path 2173

PATH 1985 SUTTON COLDFIELD ENG - MATFIELD ENG



PATH 1983 CRYSTAL PALACE ENG - TACOLNESTON ENG

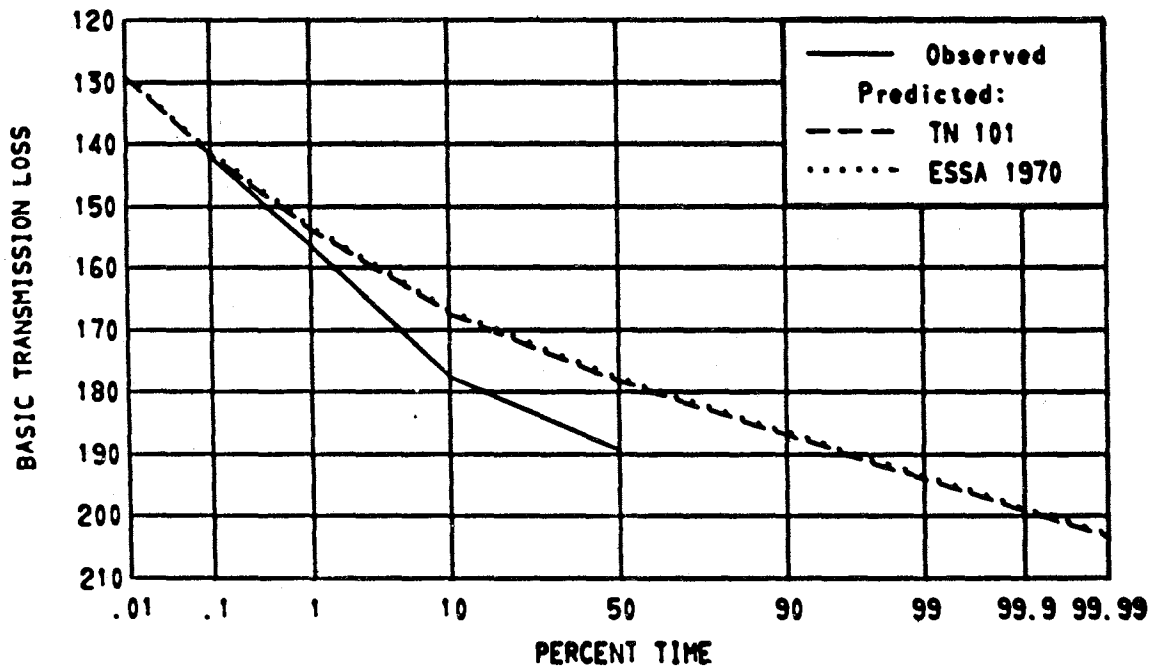
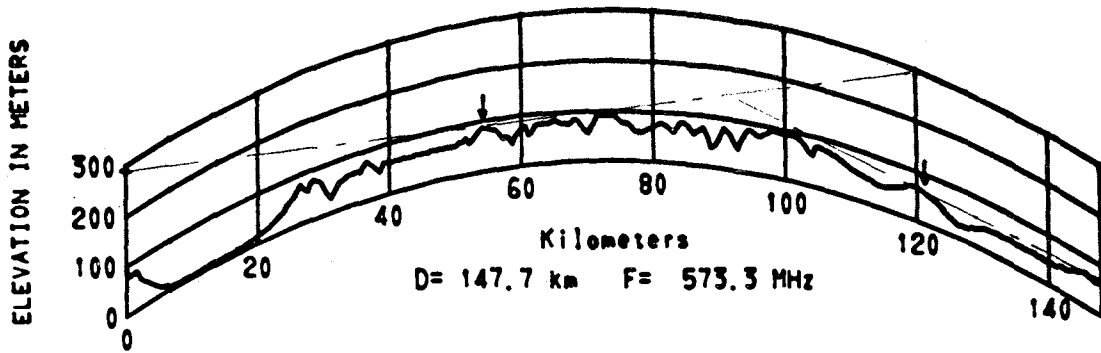


Figure 3.77 Path 1983

PATH 1986 SUTTON COLDFIELD ENG - BROOKMANS PARK ENG

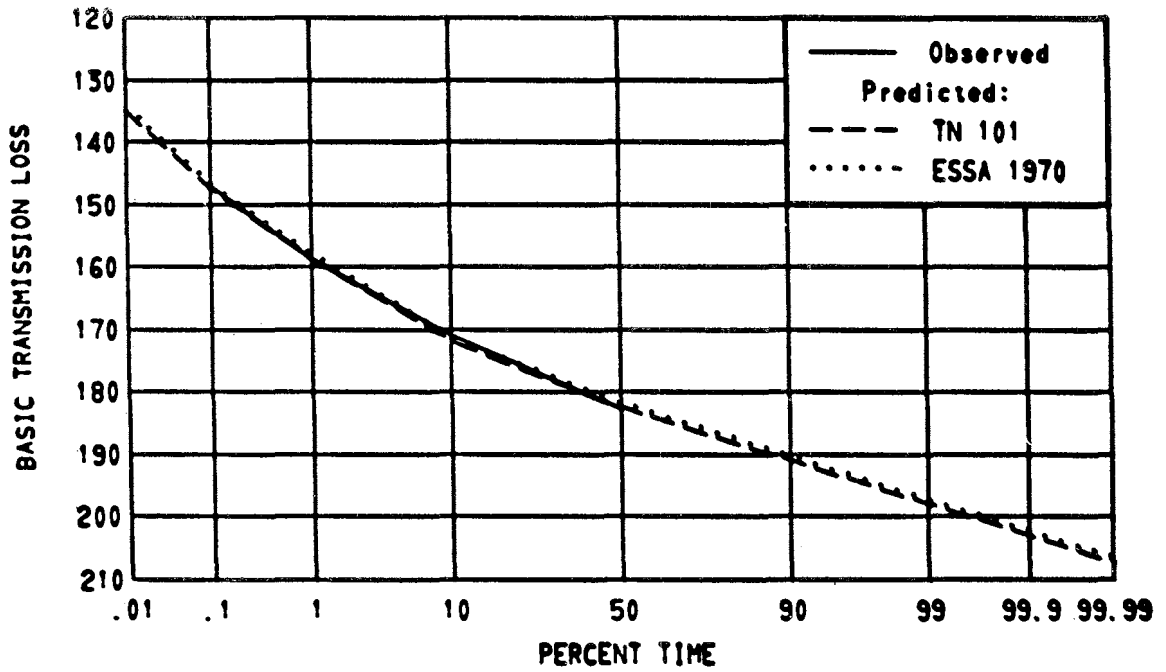
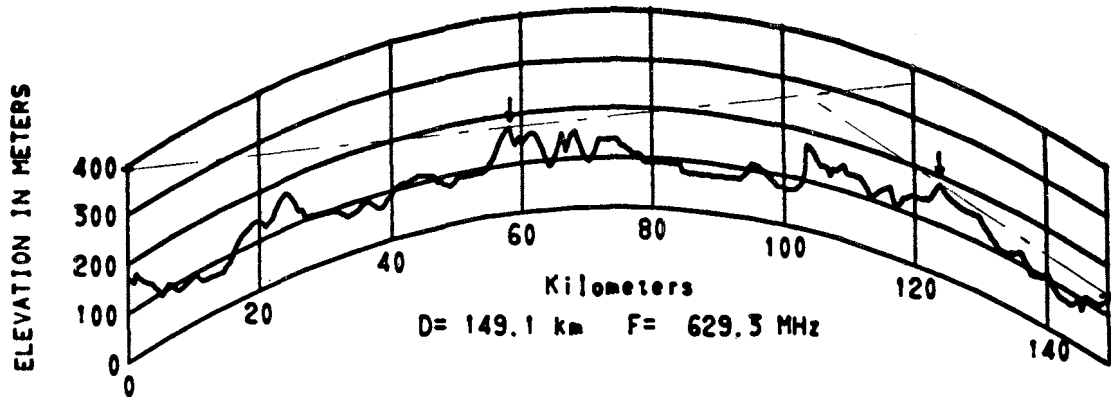


Figure 3.78 Path 1986

PATHS 2058 2120 SUTTON COLDFIELD ENG - SLOUGH ENG

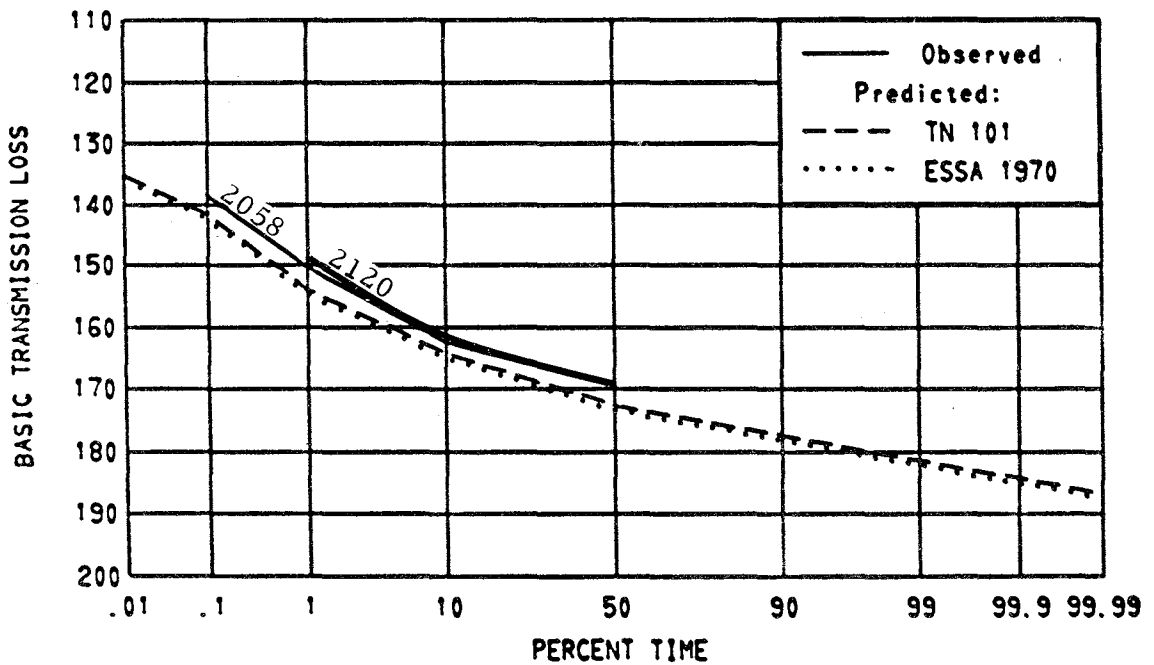
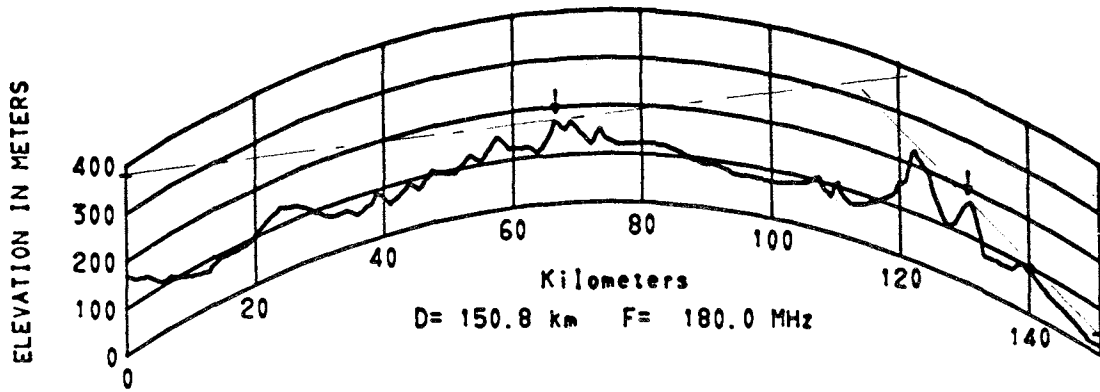


Figure 3.79 Paths 2058 2120

PATH 2098 BACKWELL ENG - SLOUGH ENG

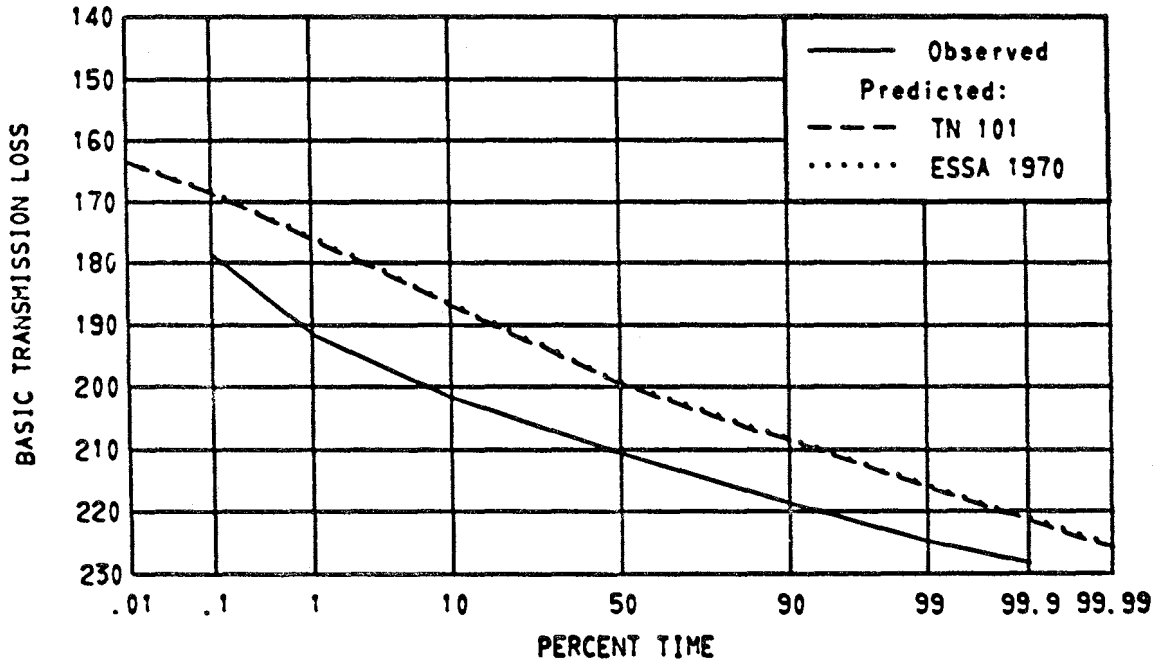
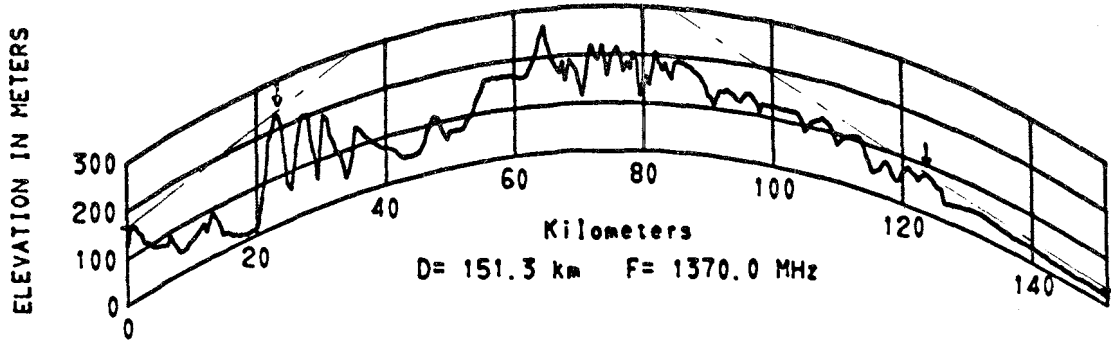


Figure 3.80 Path 2098

PATHS 2212 2213 MALVERN ENG - WEMBLEY ENG

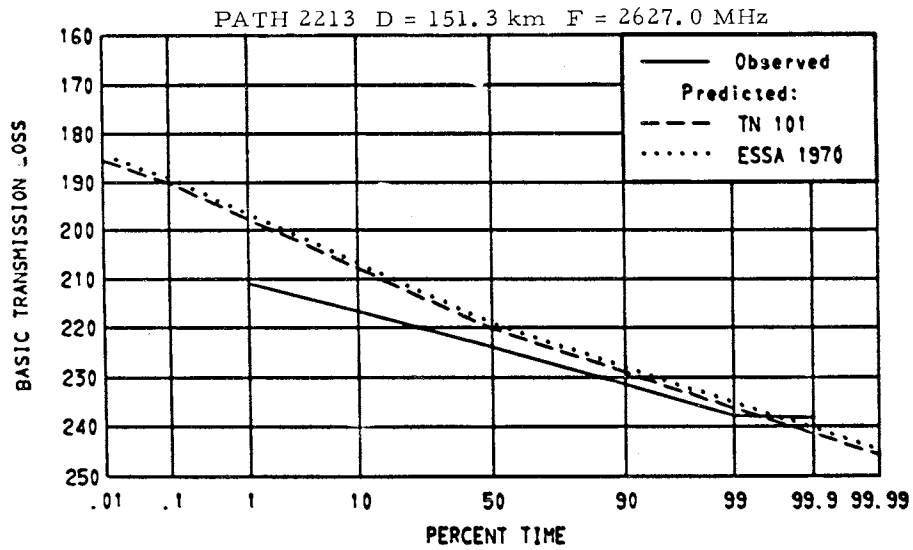
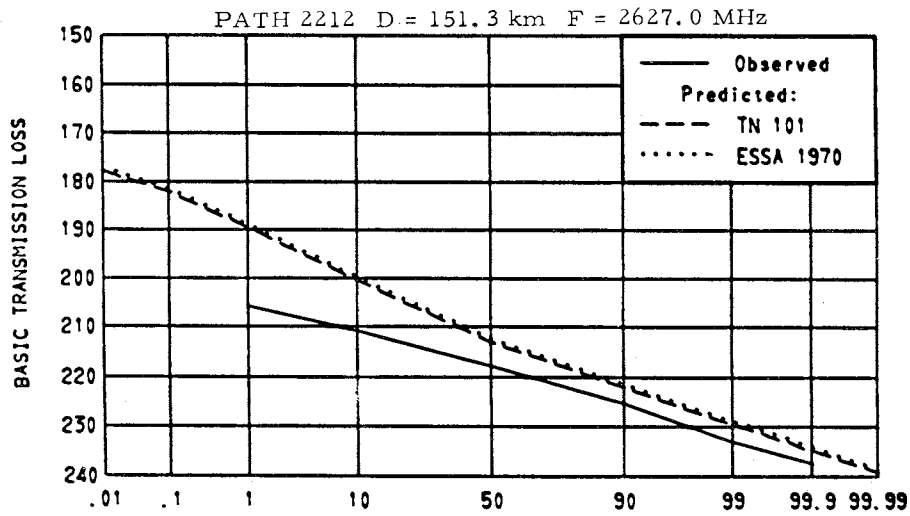
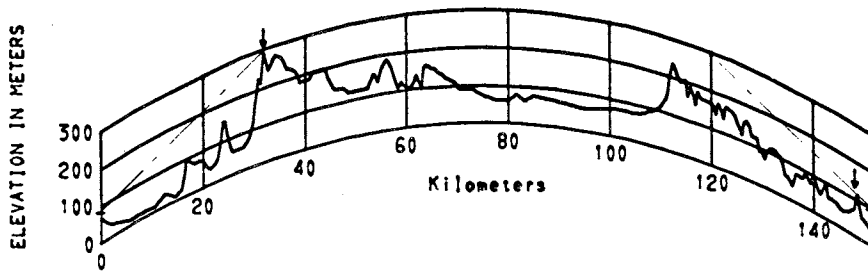


Figure 3.81 Paths 2212 2213

PATH 2126 ST HILARY DOWN WALES - BANBURY ENG

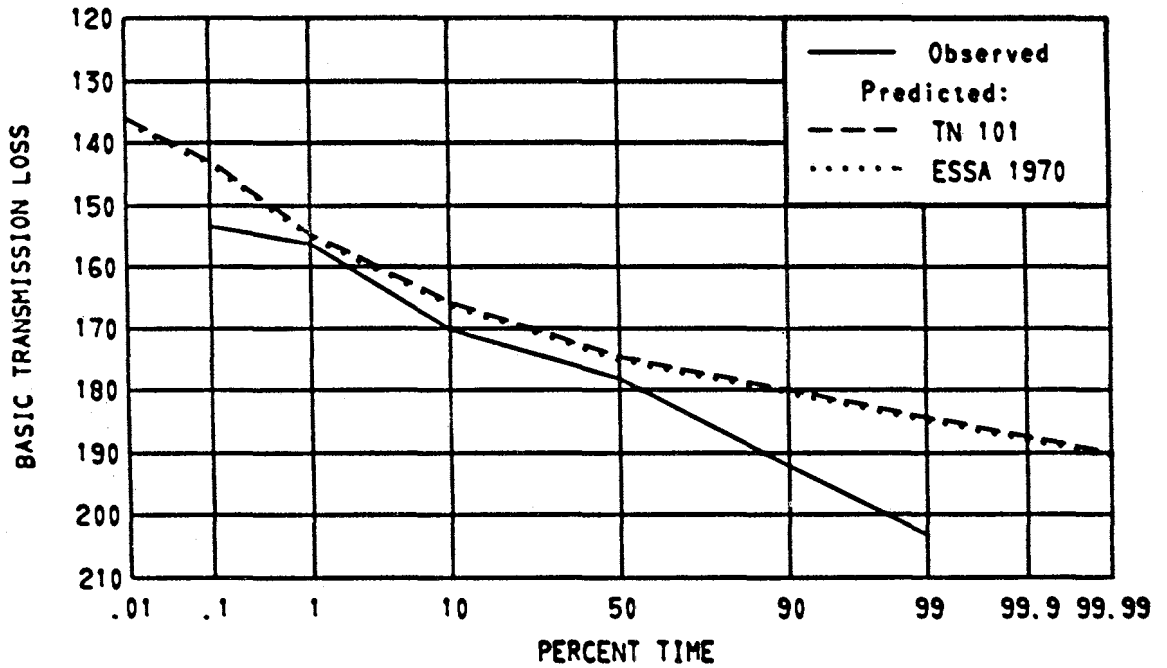
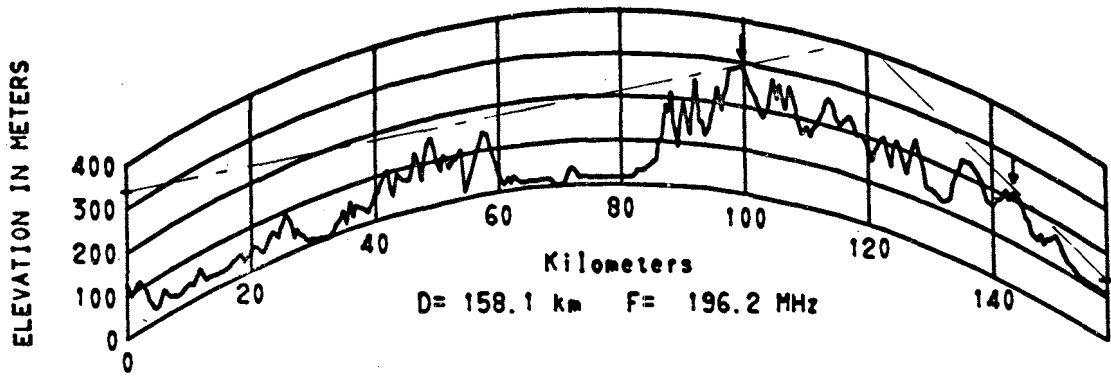


Figure 3.82 Path 2126

PATH 2097 WENVOE WALES - CAVERSHAM ENG

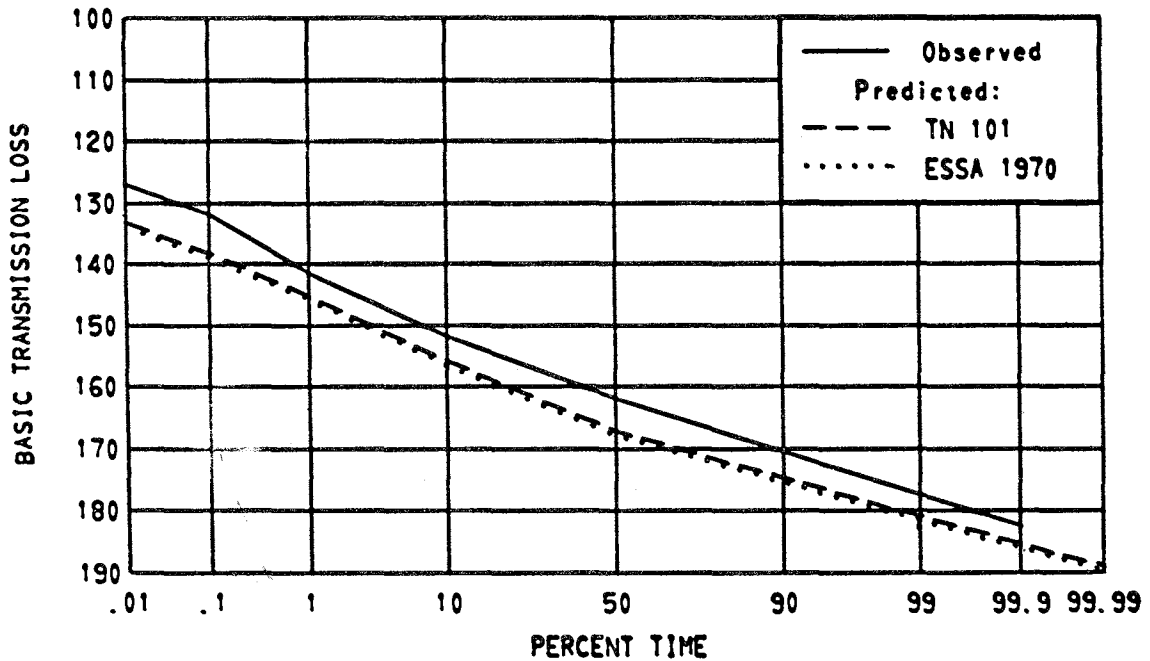
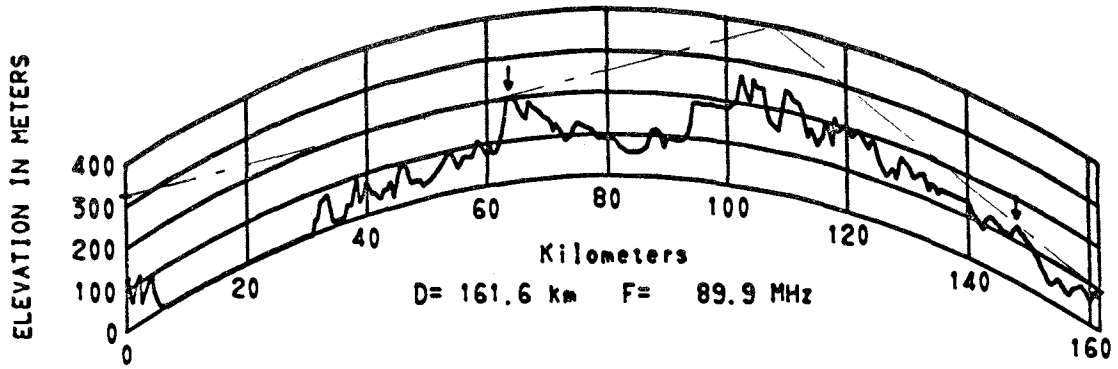


Figure 3.83 Path 2097

PATHS 2040 2045 PONTOP PIKE ENG - OTTRINGHAM ENG

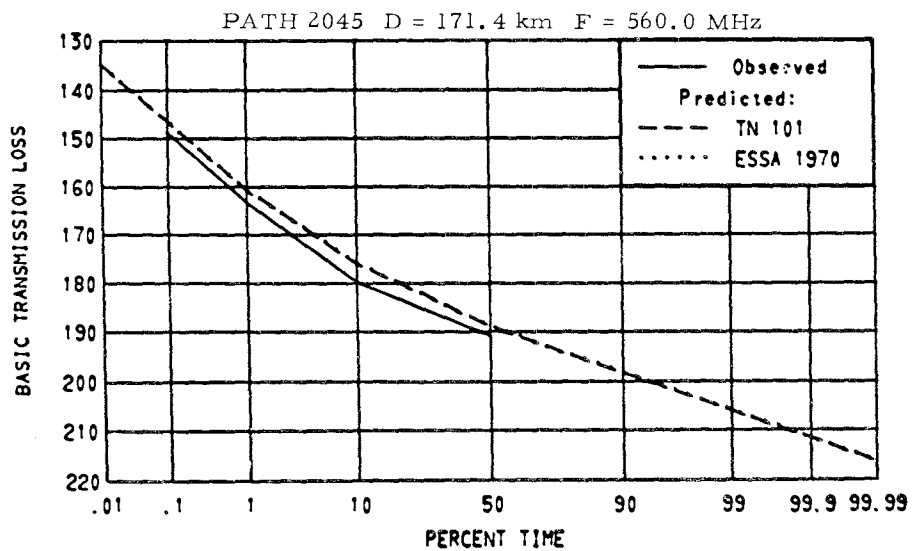
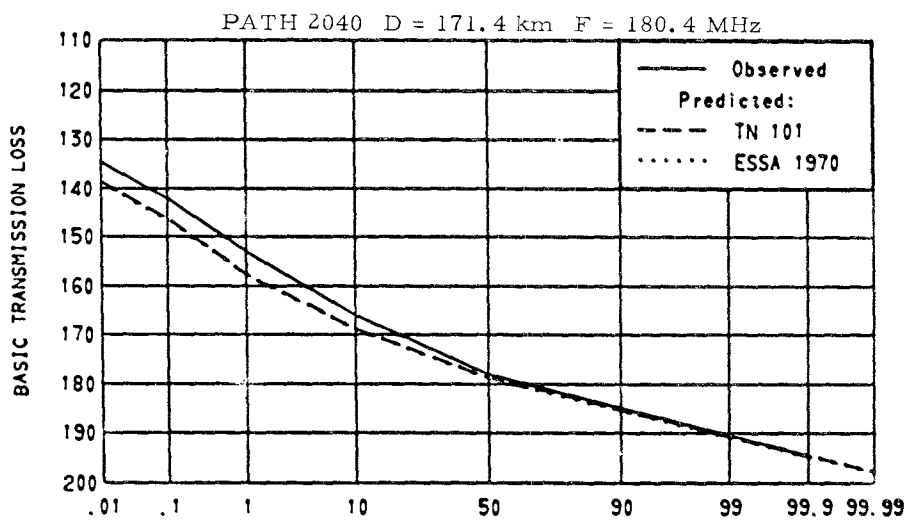
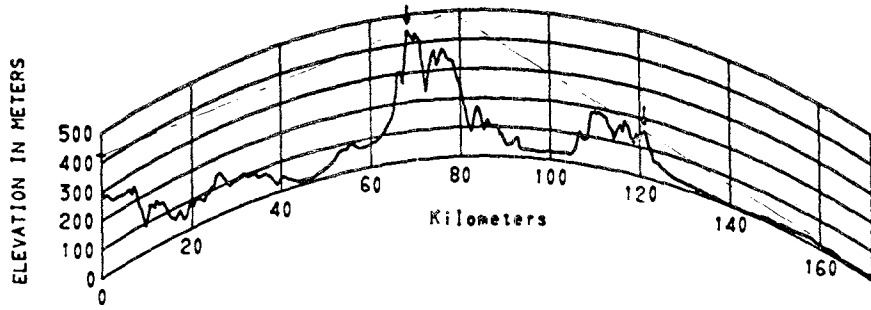


Figure 3.84 Paths 2040 2045

PATH 2141 BLAEN PLWYF WALES - DUBLIN IRE

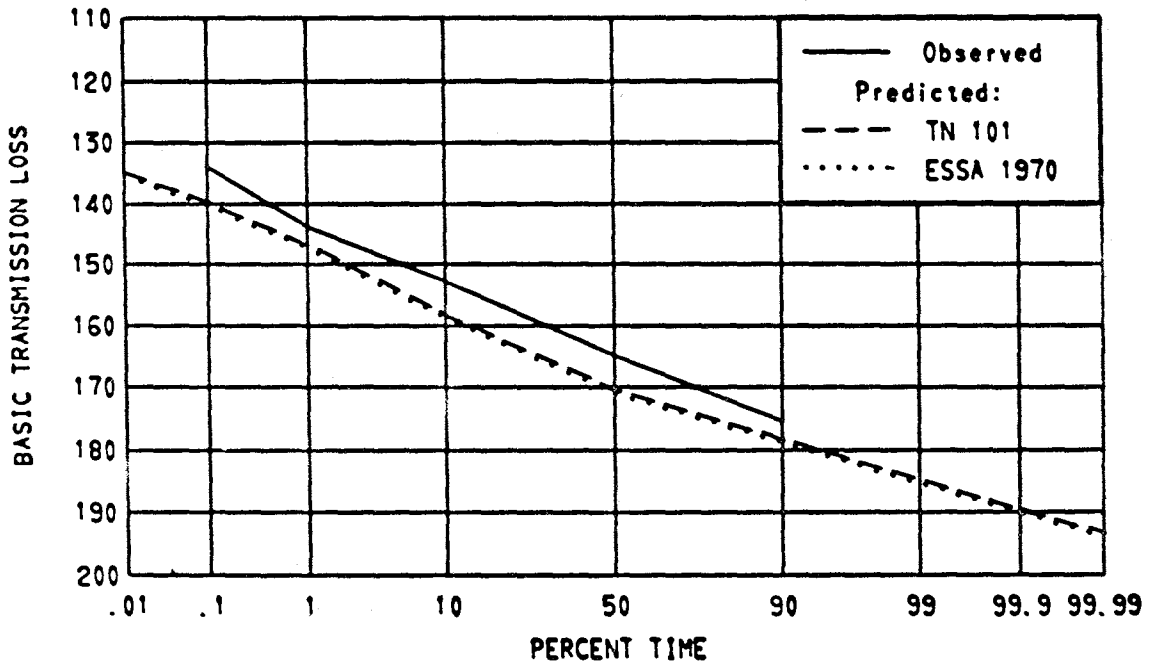
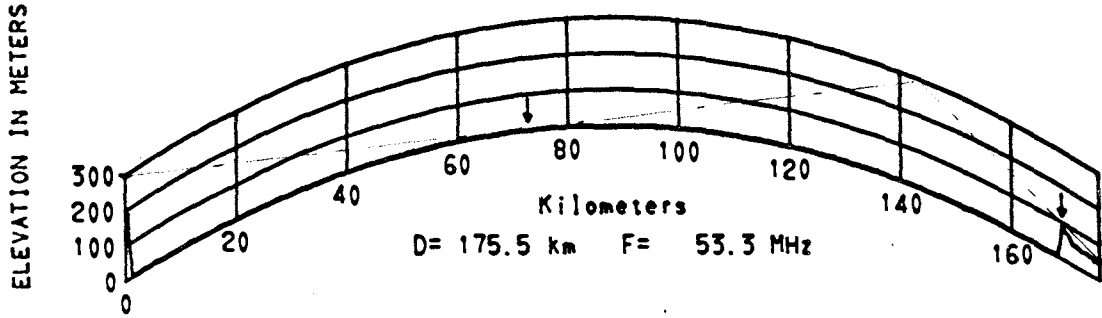


Figure 3.85 Path 2141

PATH 2125 EMLEY MOOR ENG - BANBURY ENG

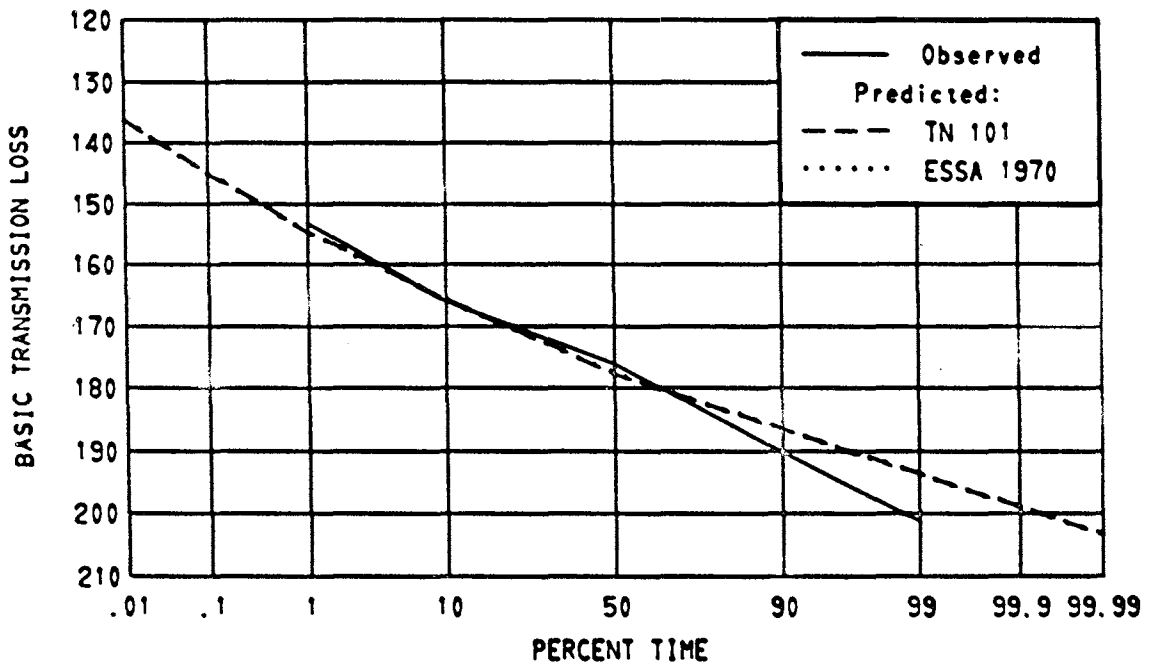
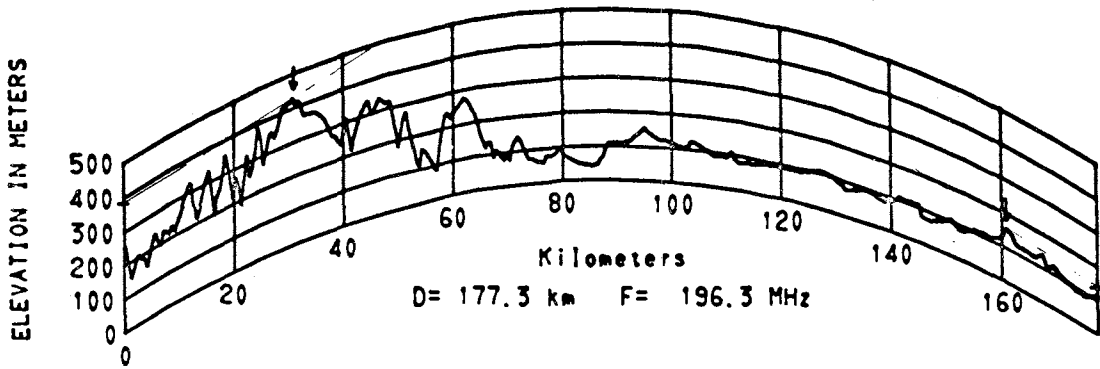


Figure 3.86 Path 2125

PATHS 2029 2220 SUTTON GOLDFIELD ENG - KINGSWOOD ENG

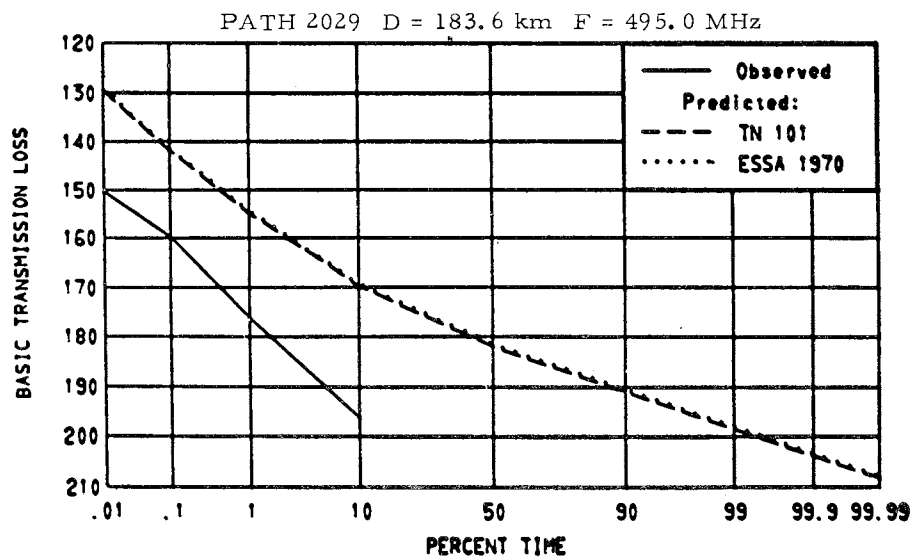
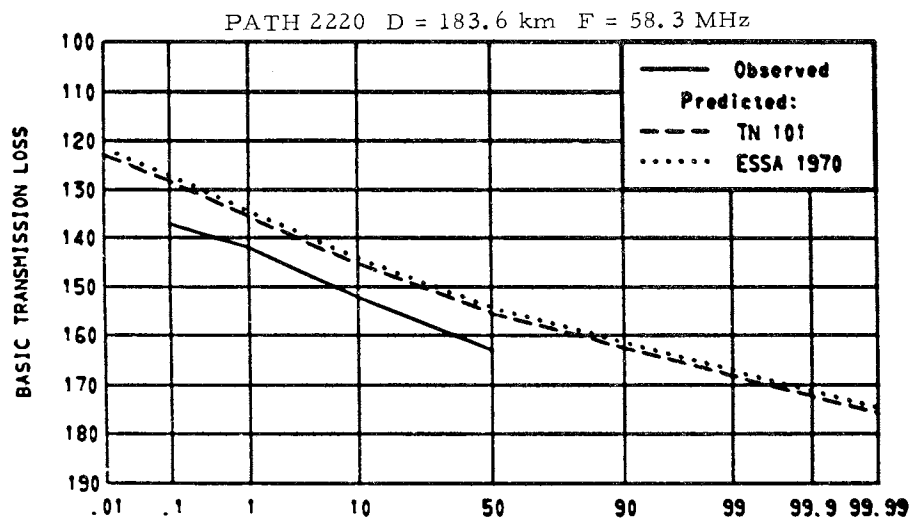
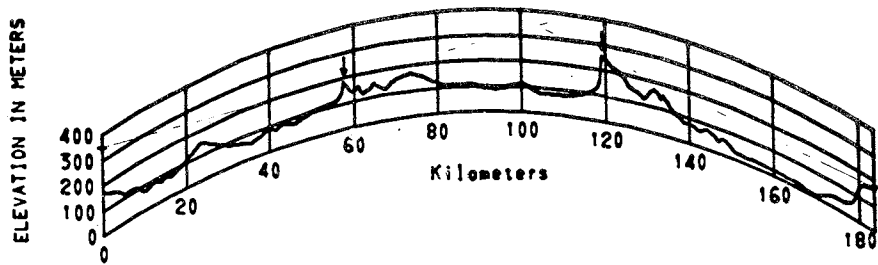


Figure 3.87 Paths 2029 2220

PATH 2072 WENVOE WALES - SLOUGH ENG

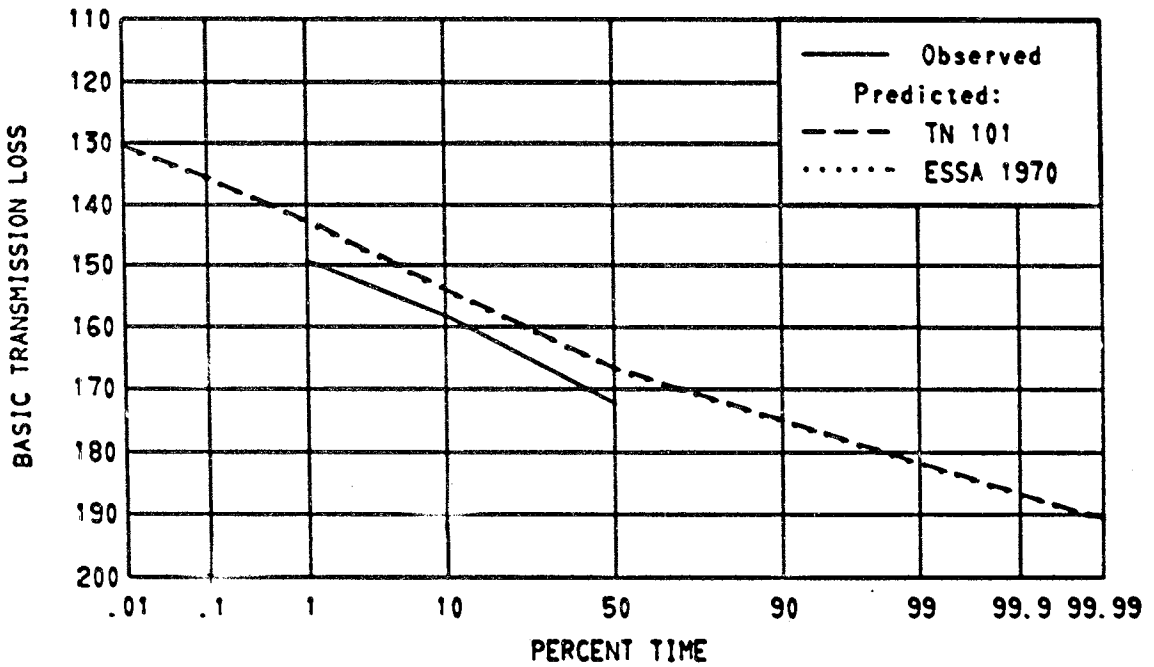
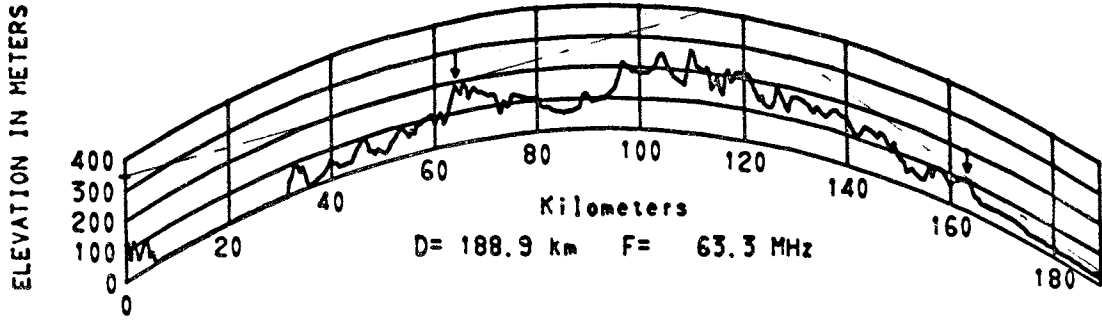


Figure 3.88 Path 2072

PATH 2031 HOLME MOSS ENG - MURSLEY ENG

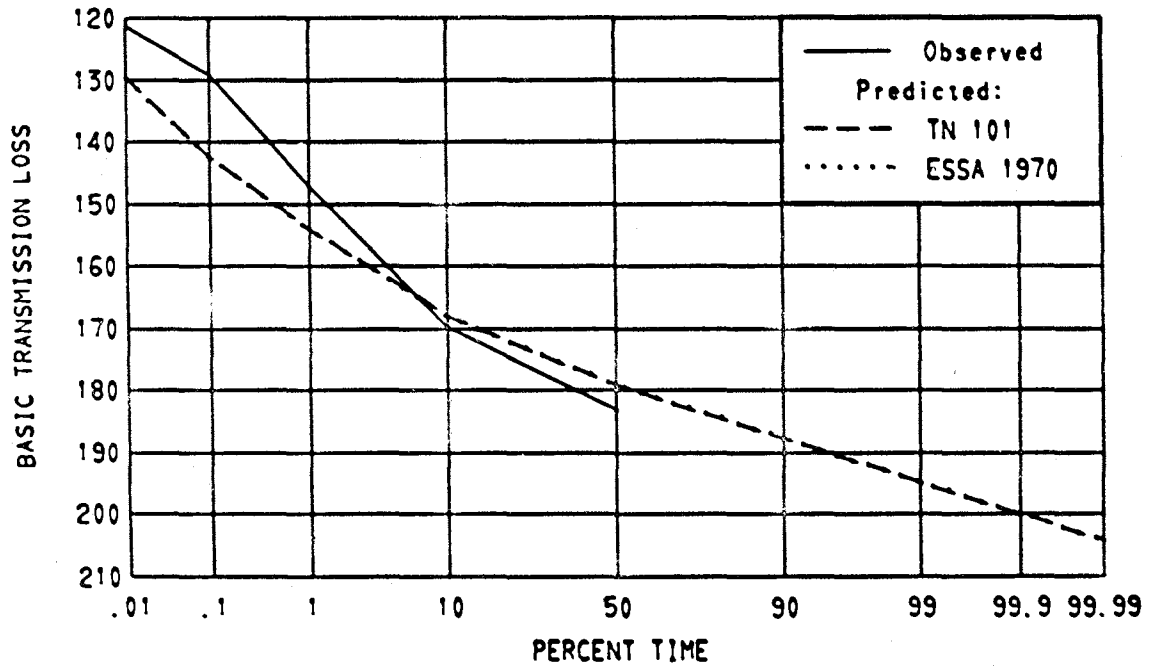
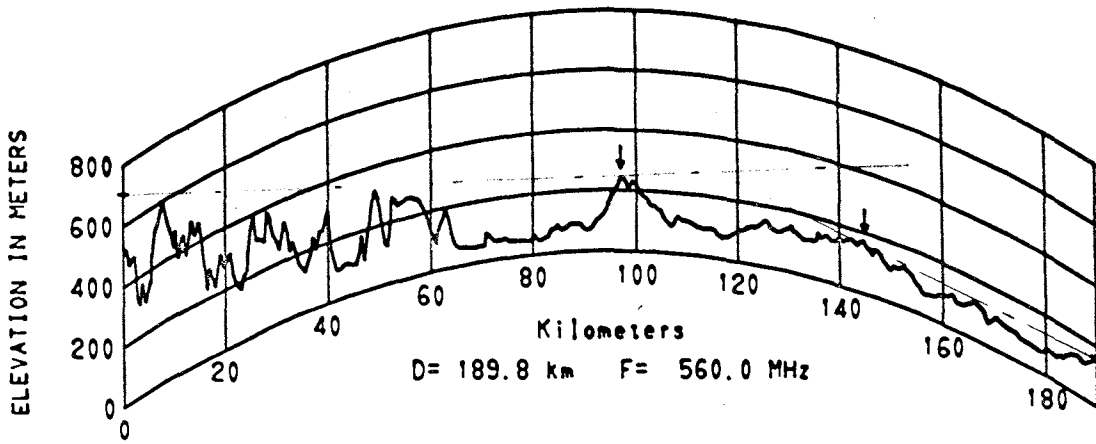


Figure 3.89 Path 2031

PATH 2221 SUTTON COLDFIELD ENG - REIGATE ENG

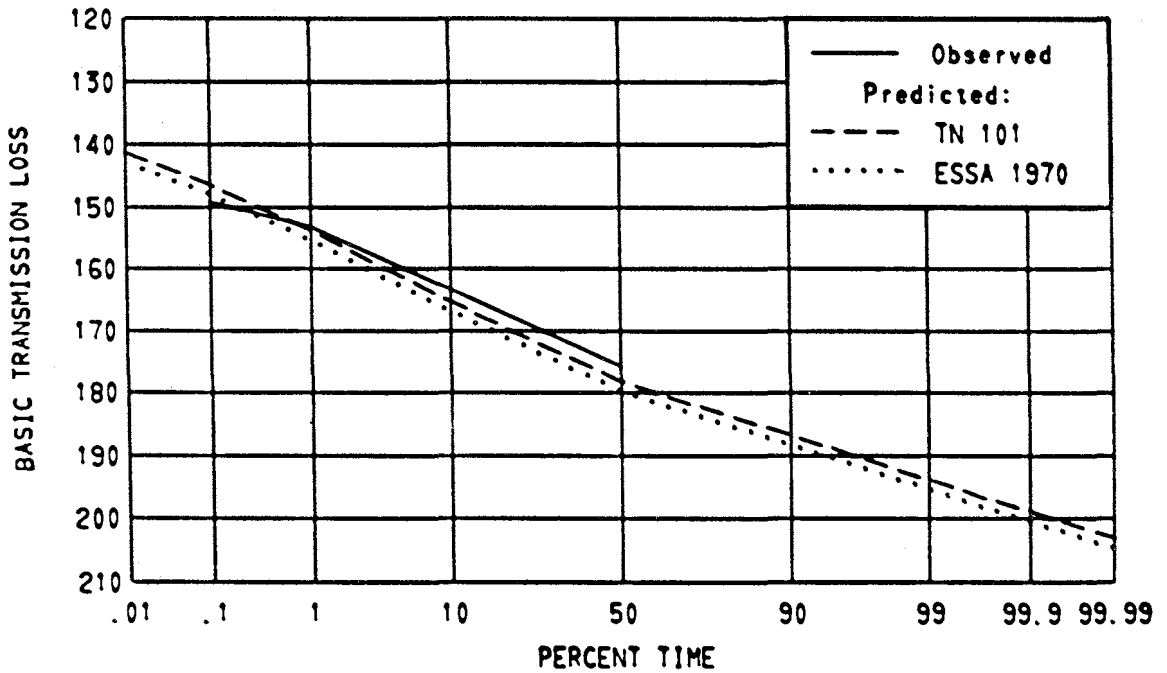
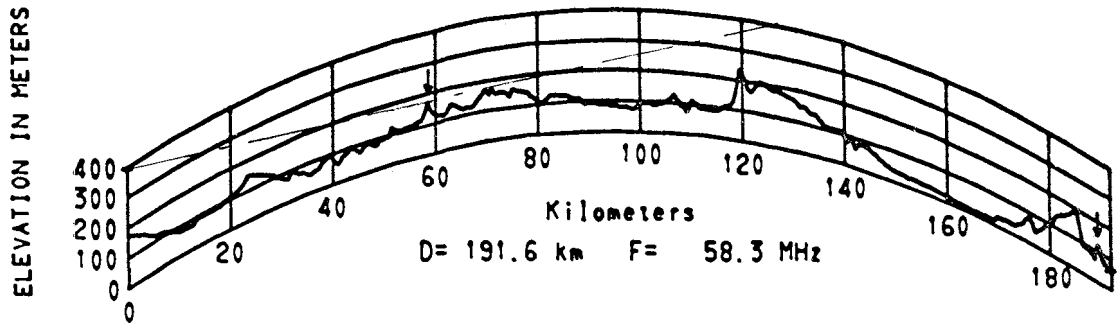


Figure 3.90 Path 2221

PATH 2152 WINTER HILL ENG - BANBURY ENG

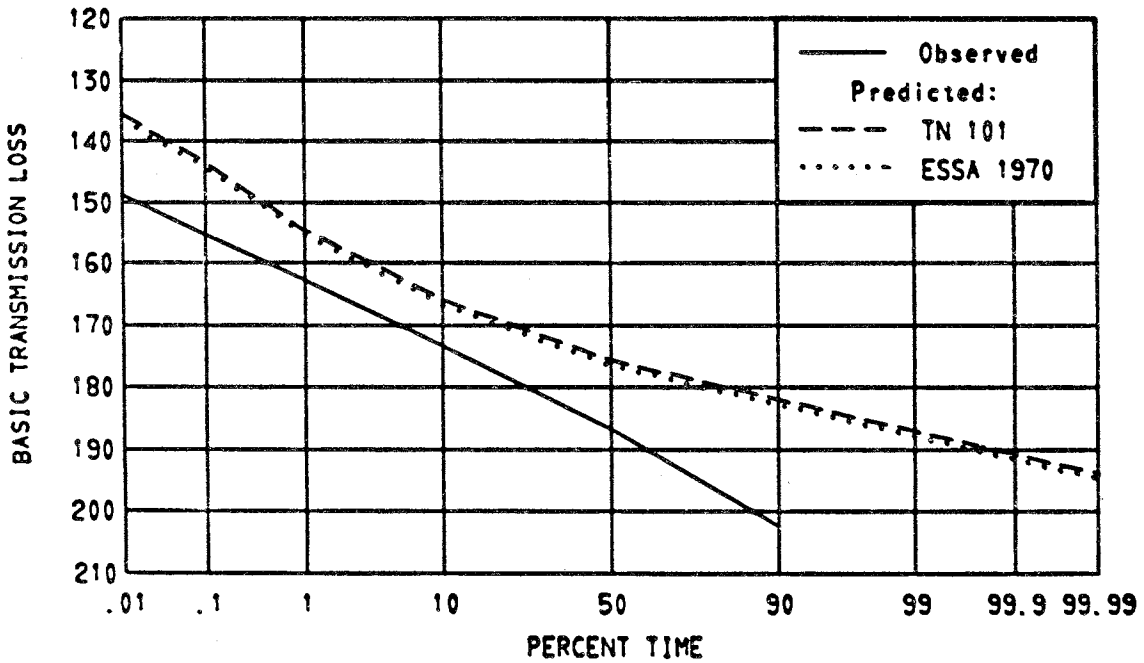
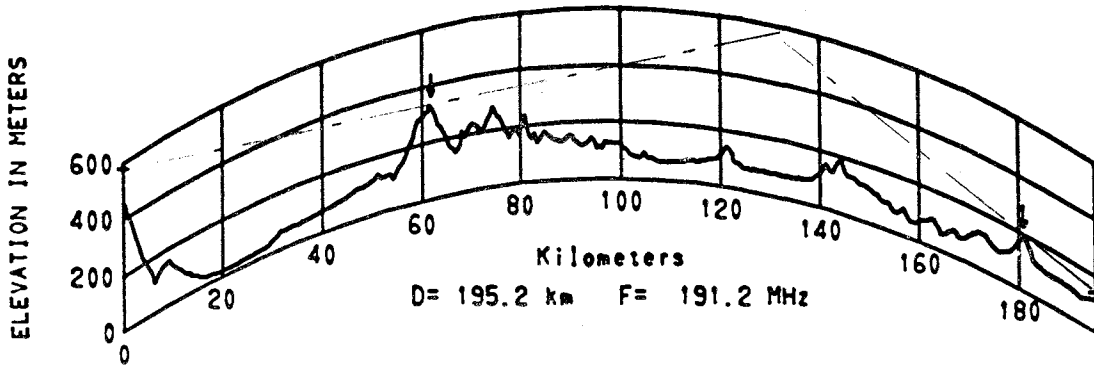


Figure 3.91 Path 2152

PATH 2222 SUTTON COLDFIELD ENG - HOOKWOOD ENG

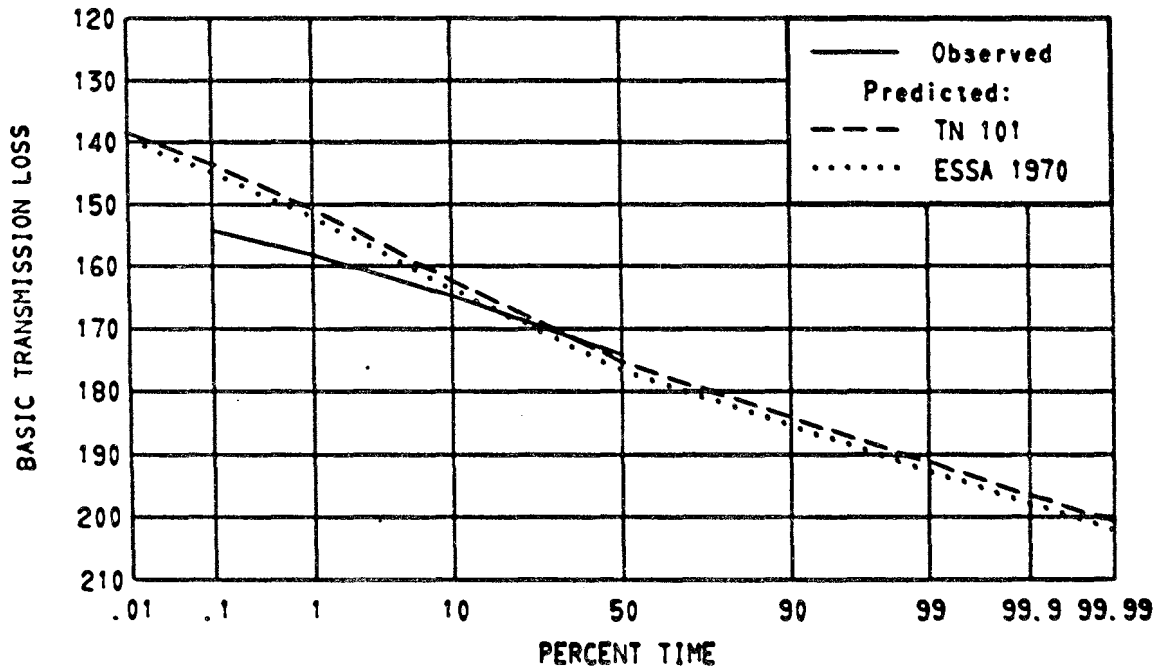
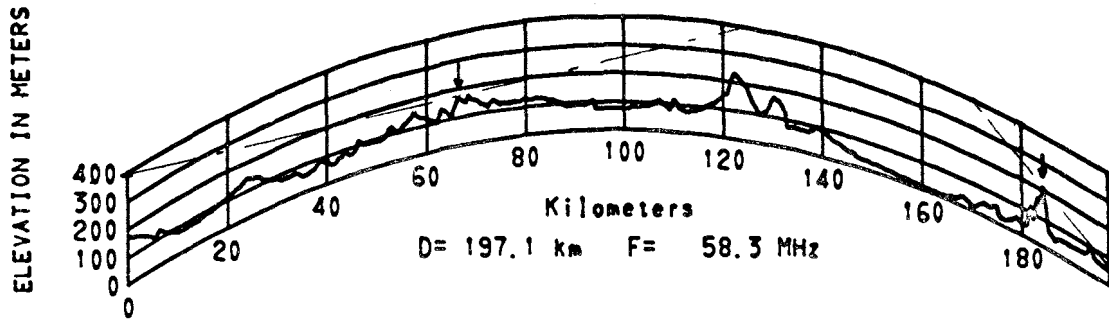


Figure 3.92 Path 2222

PATH 2060 ALEXANDRA PALACE ENG - CASTLETON WALES

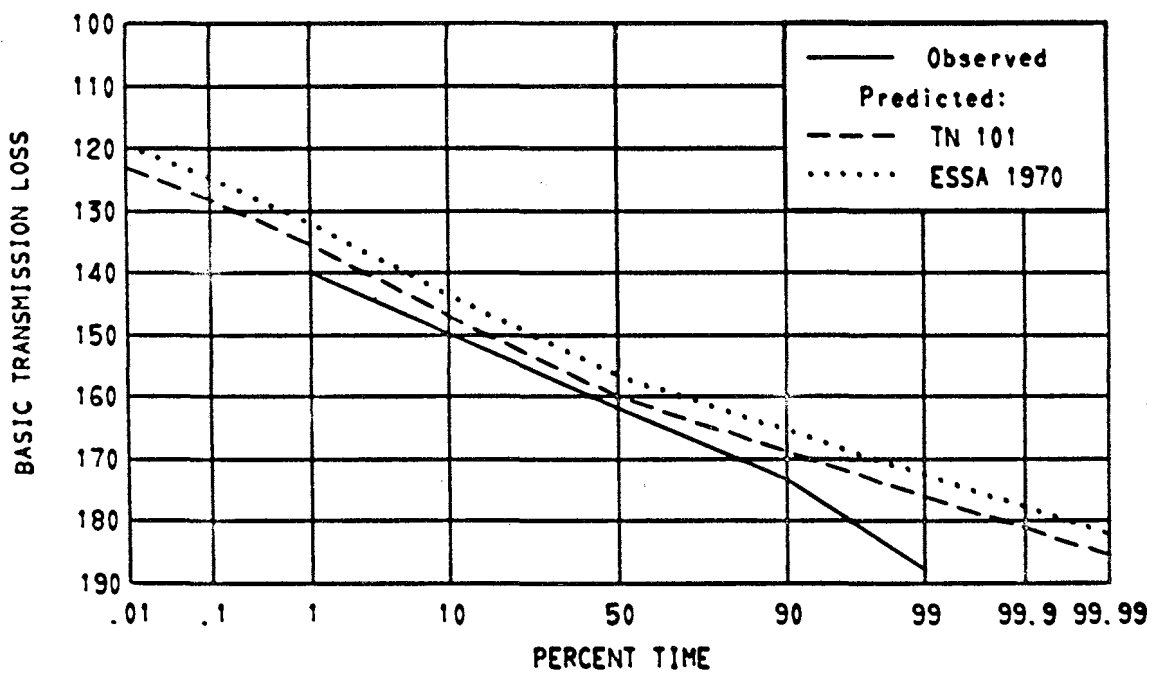
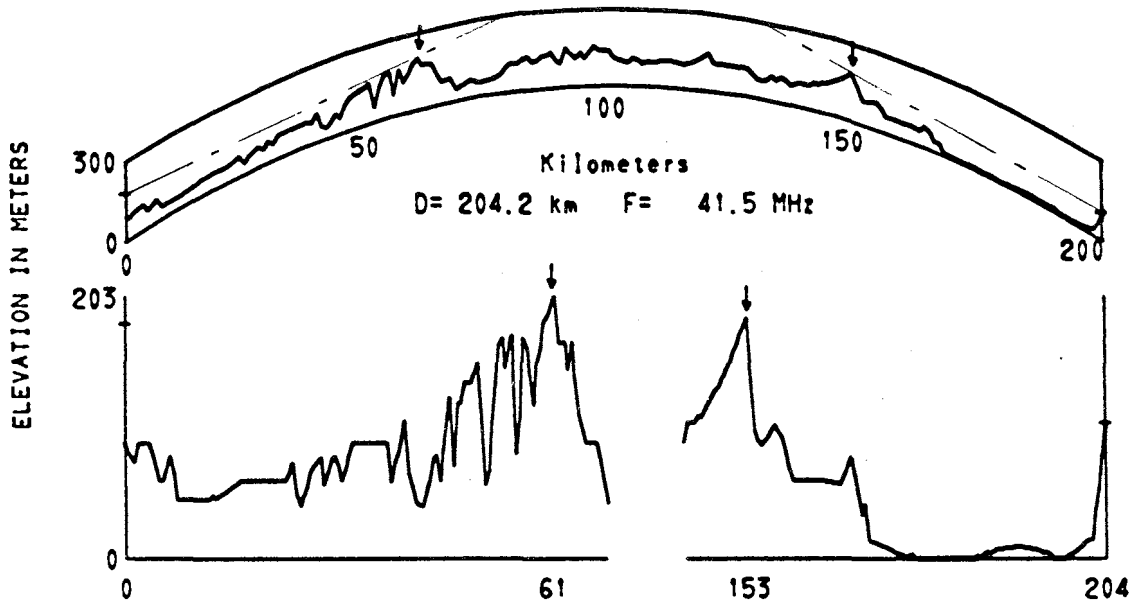


Figure 3.93 Path 2060

PATH 2128 HOUGHAM ENG - BANBURY ENG

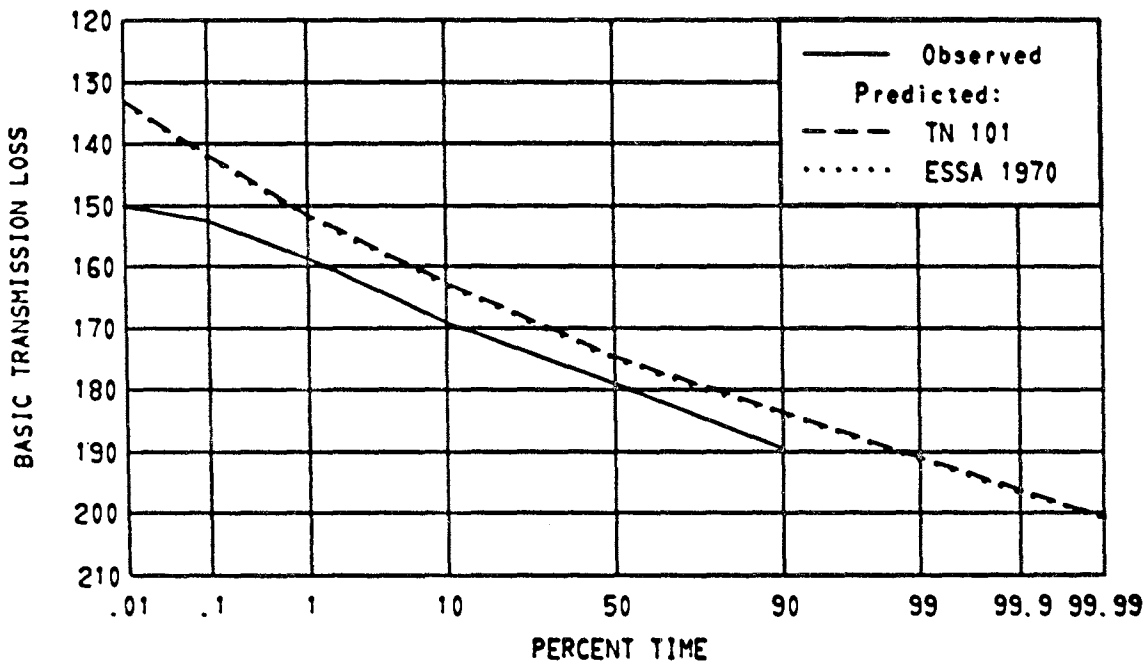
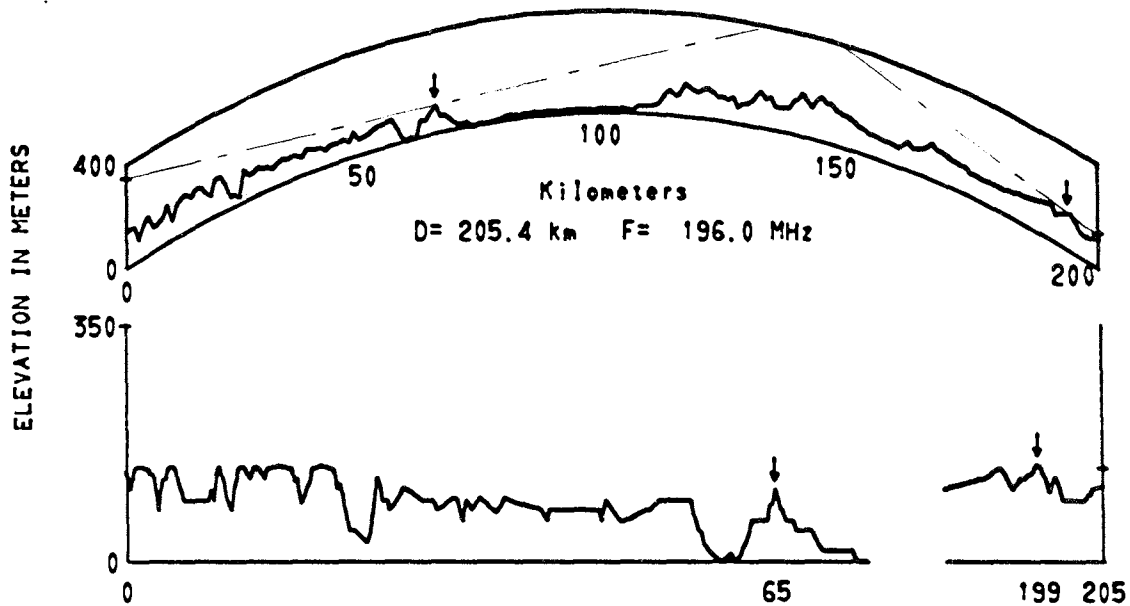


Figure 3.94 Figure 2128

PATHS 2185 2191 CRYSTAL PALACE ENG - CASTLETON WALES

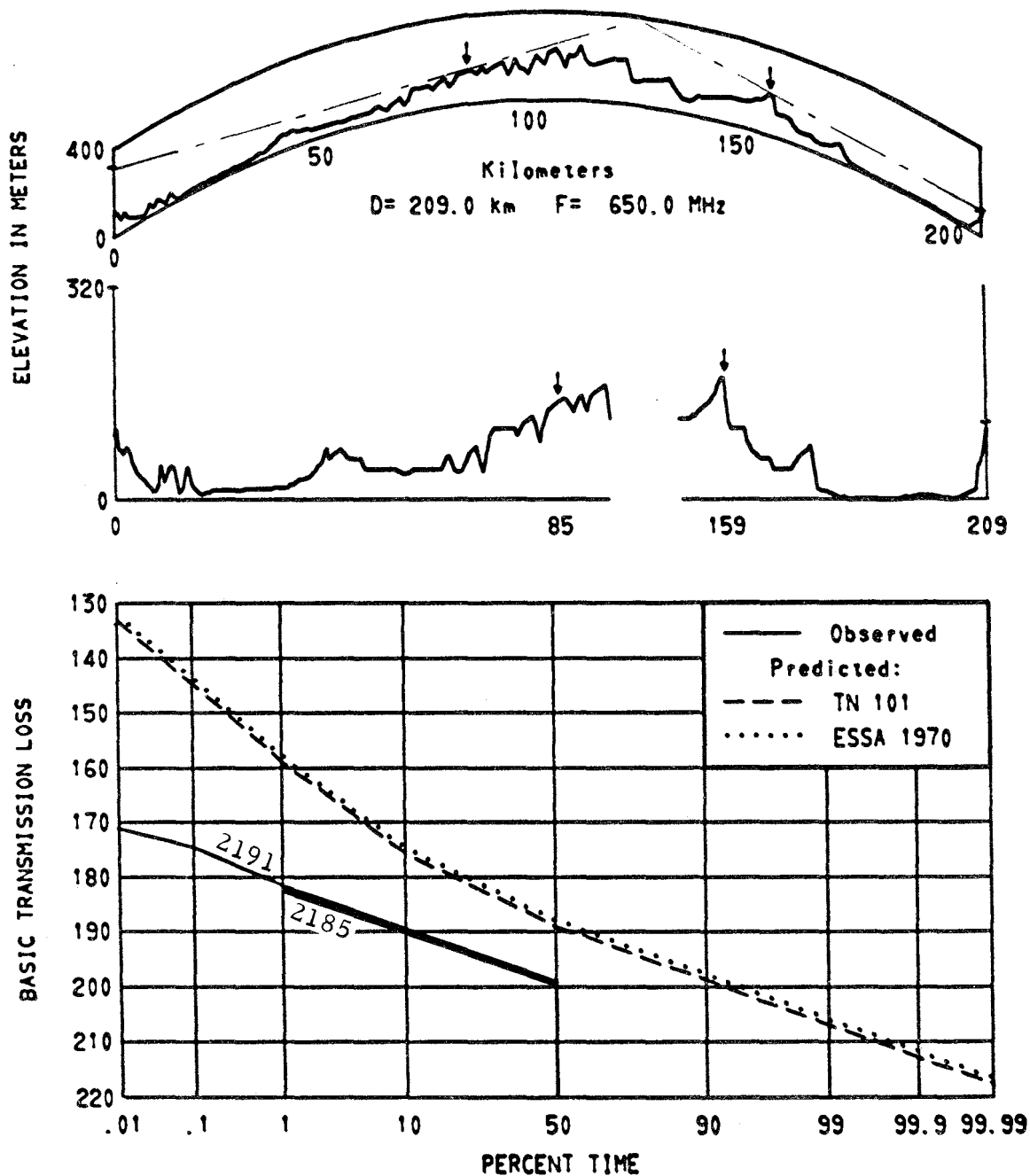
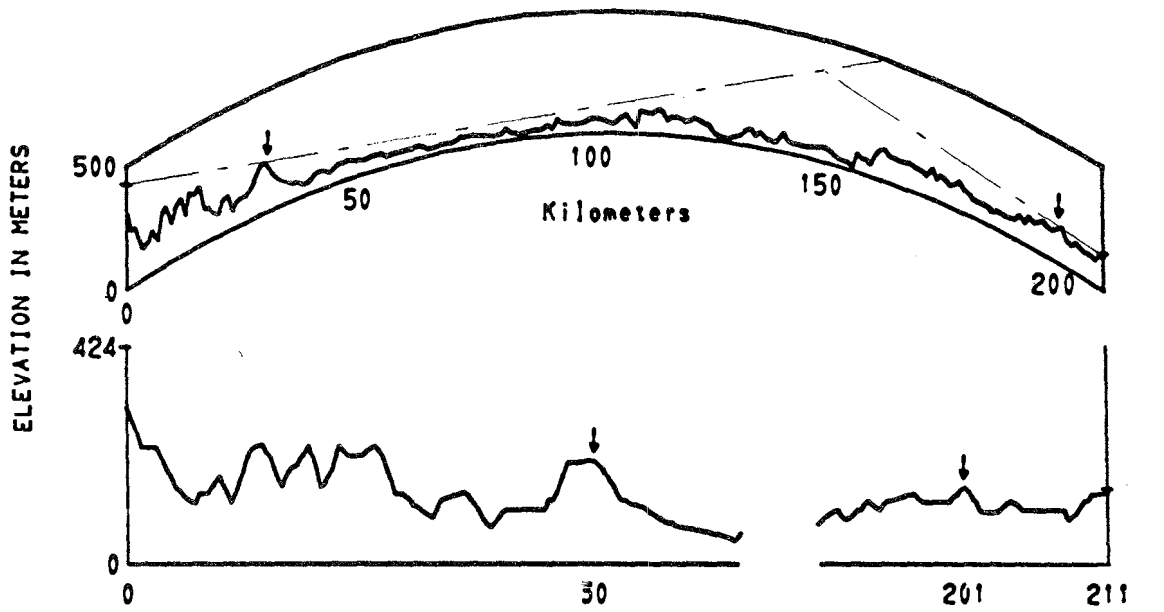


Figure 3.95 Paths 2185 2191

PATHS 2041 2046 2102 PONTOP PIKE ENG - DORKET HEAD ENG



PATH 2041 D = 210.8 km F = 180.4 MHz

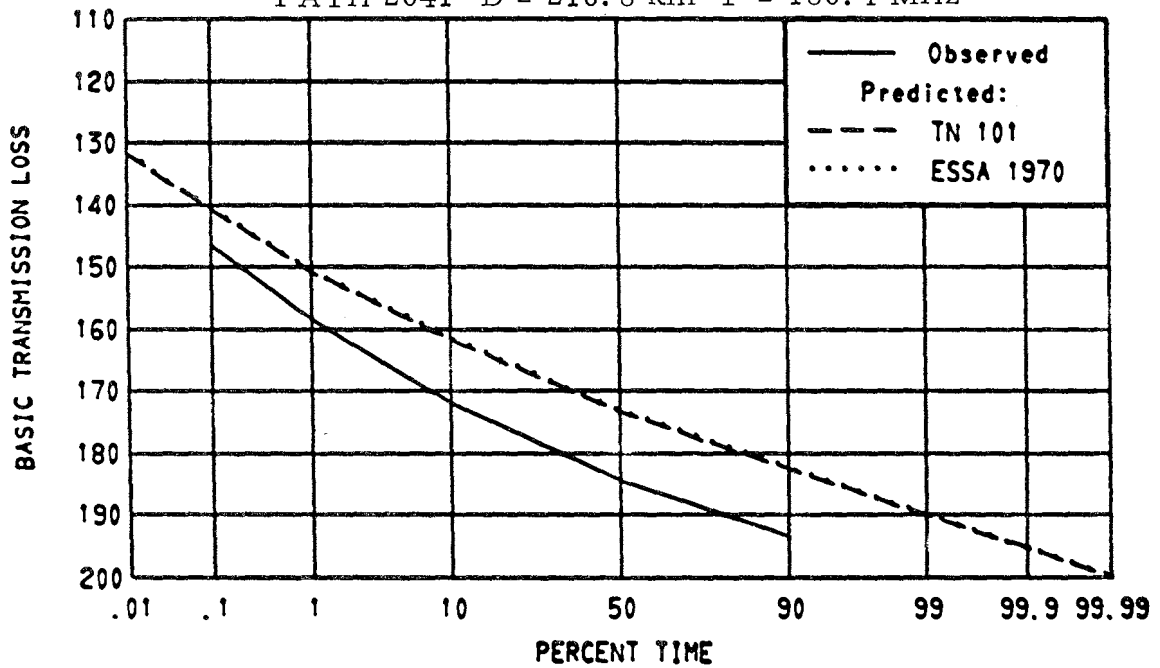
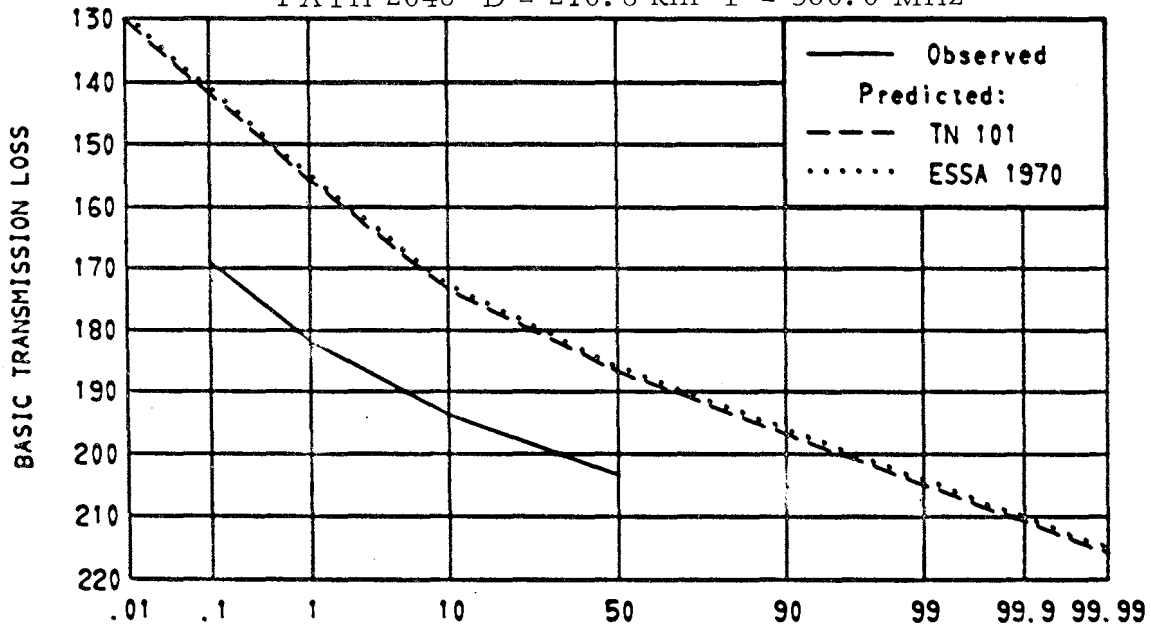


Figure 3.96 Path 2041

PONTOPIKE ENG - DORKET HEAD ENG

PATH 2046 D = 210.8 km F = 560.0 MHz



PATH 2102 D = 210.8 km F = 774.0 MHz

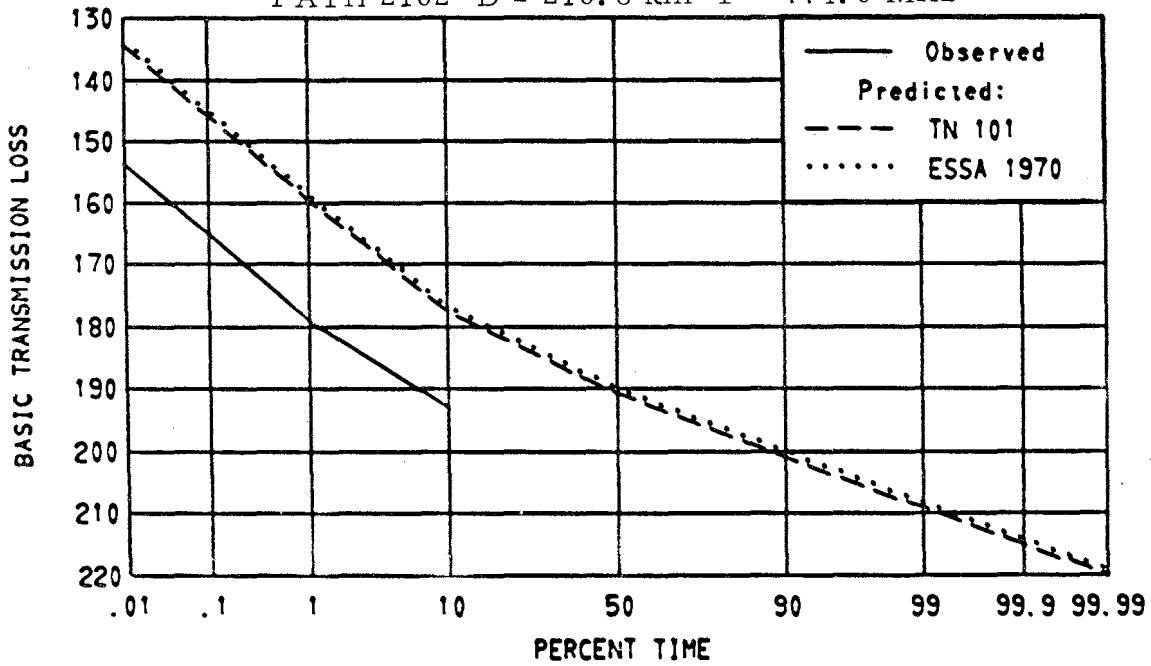


Figure 3.97 Paths 2046 2102

PATH 2011 WROTHAM ENG - DORKET HEAD ENG

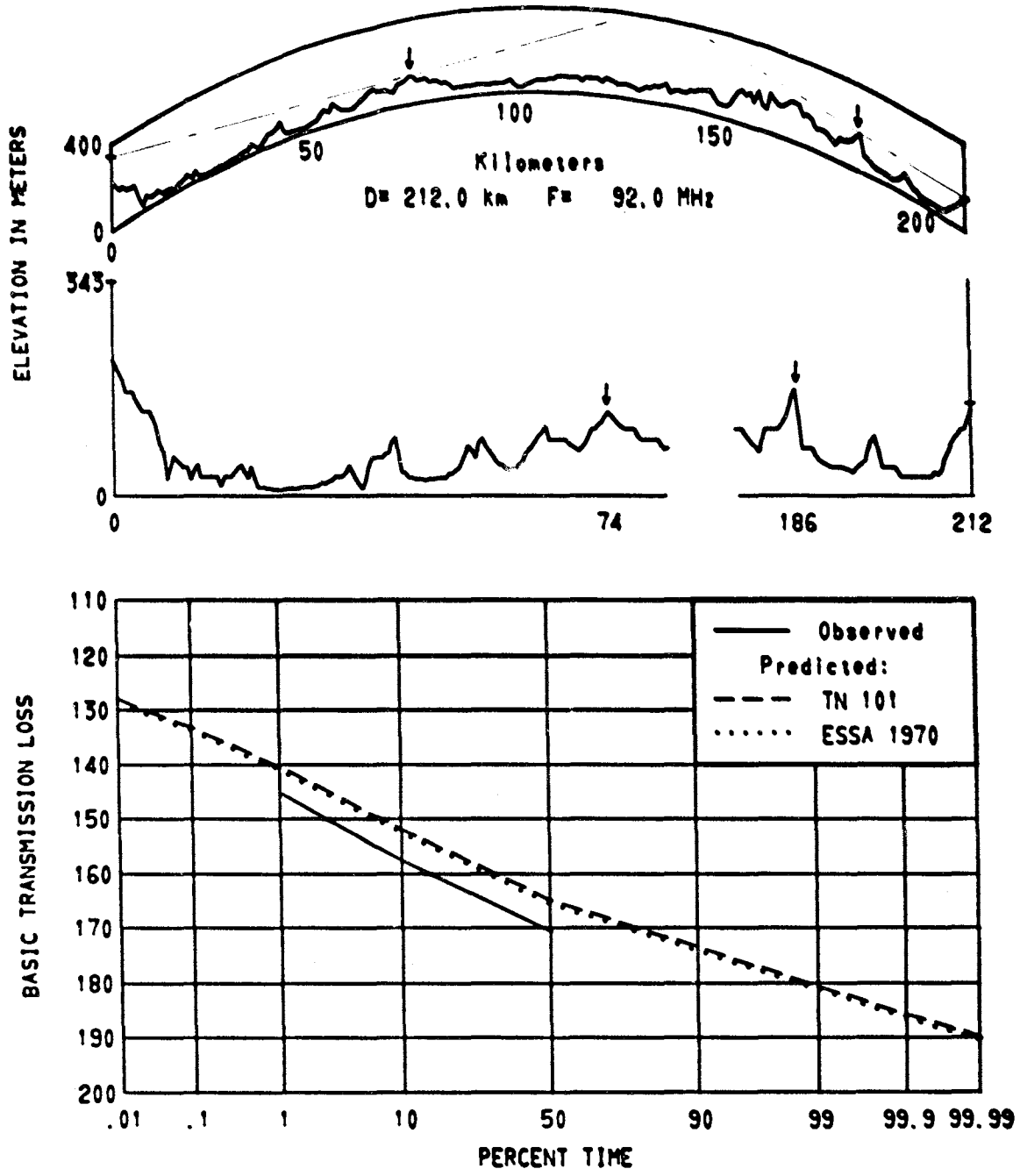


Figure 3.98 Path 2011

PATH 2154 WINTER HILL ENG - DUNDRUM IRE

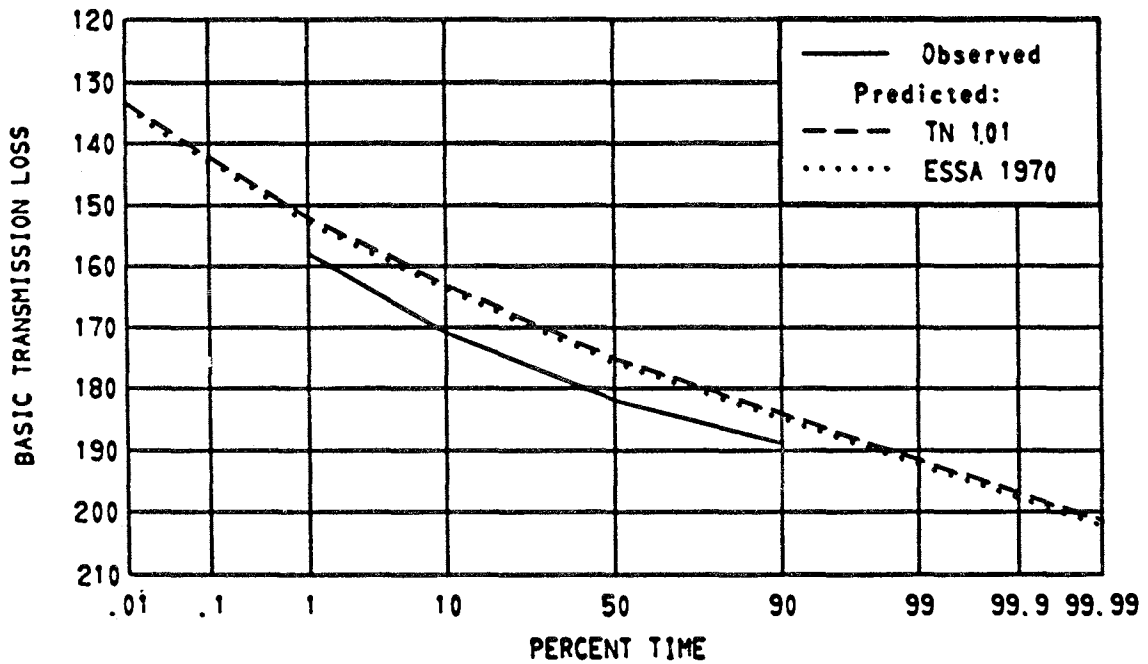
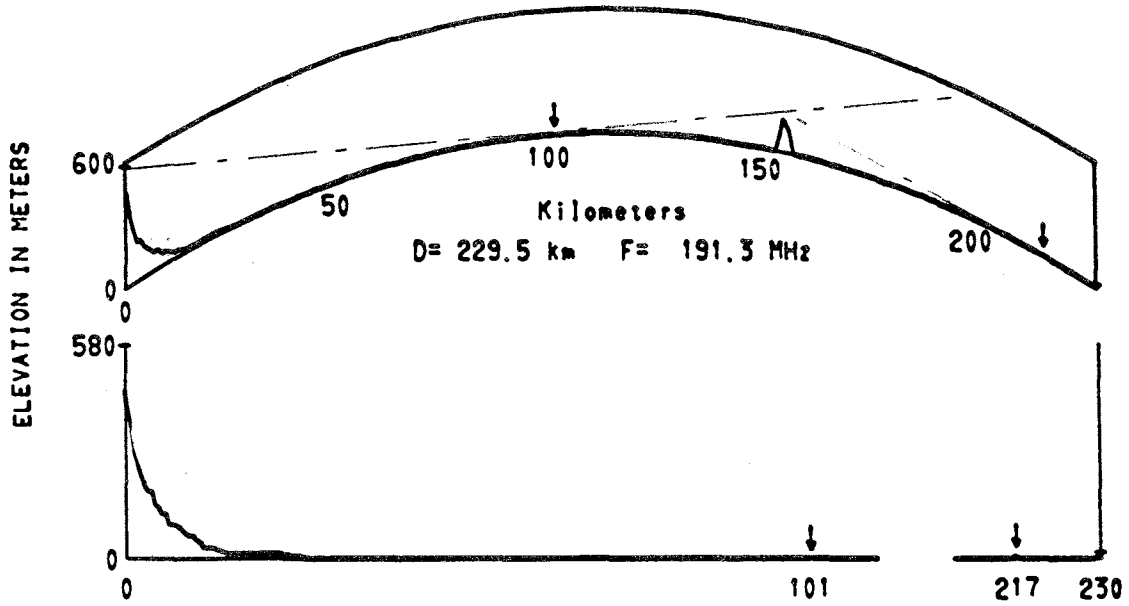


Figure 3.99 Path 2154

PATHS 2174 2187 WROTHAM ENG - CASTLETON WALES

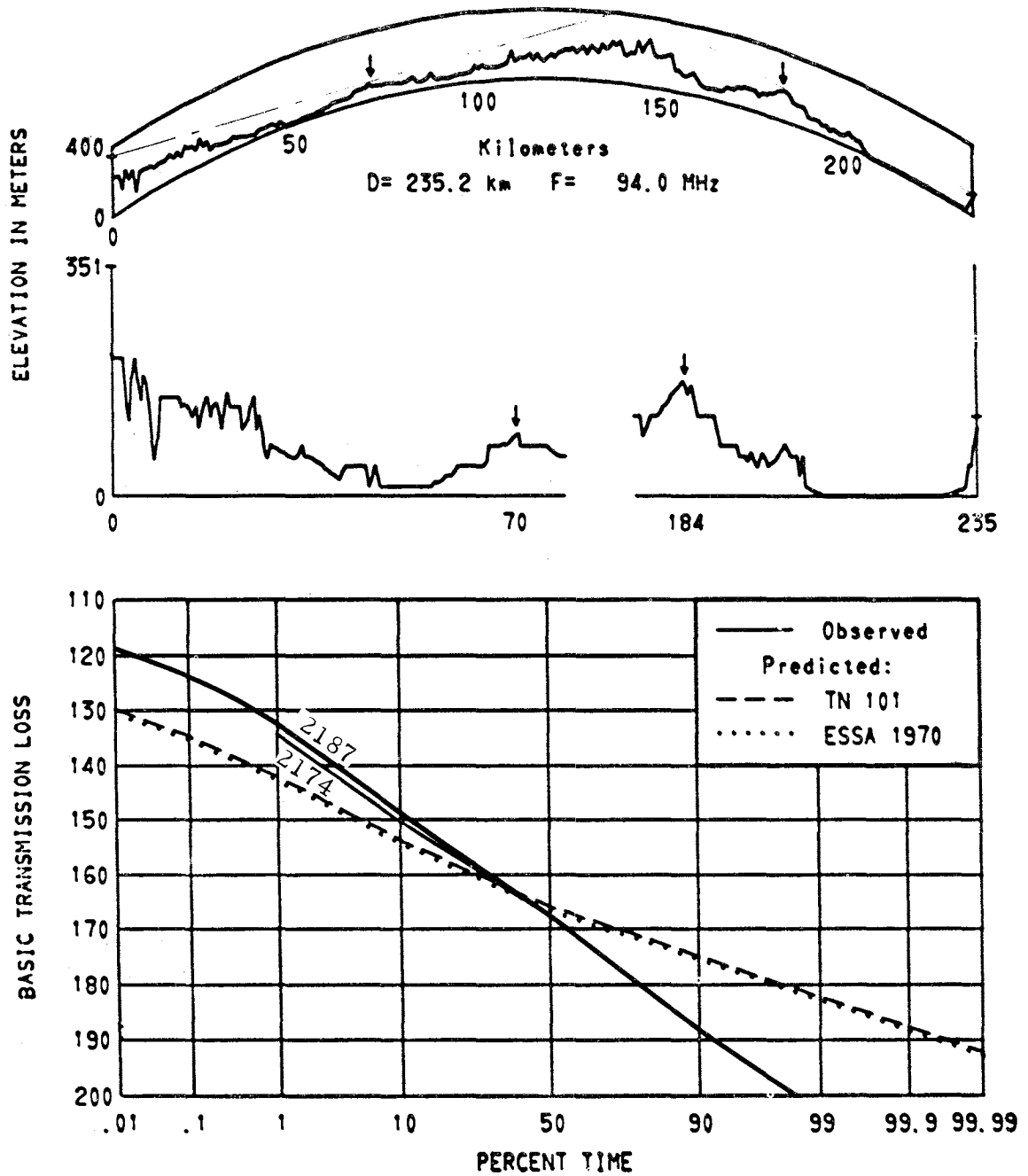
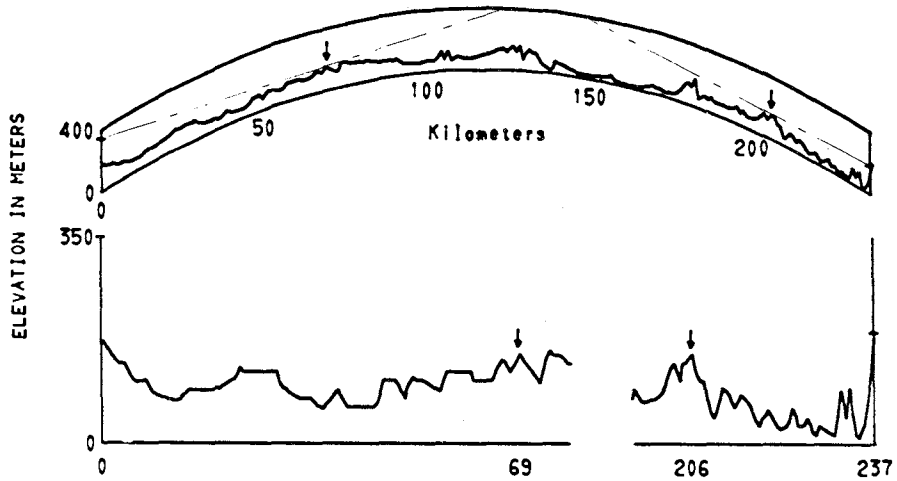
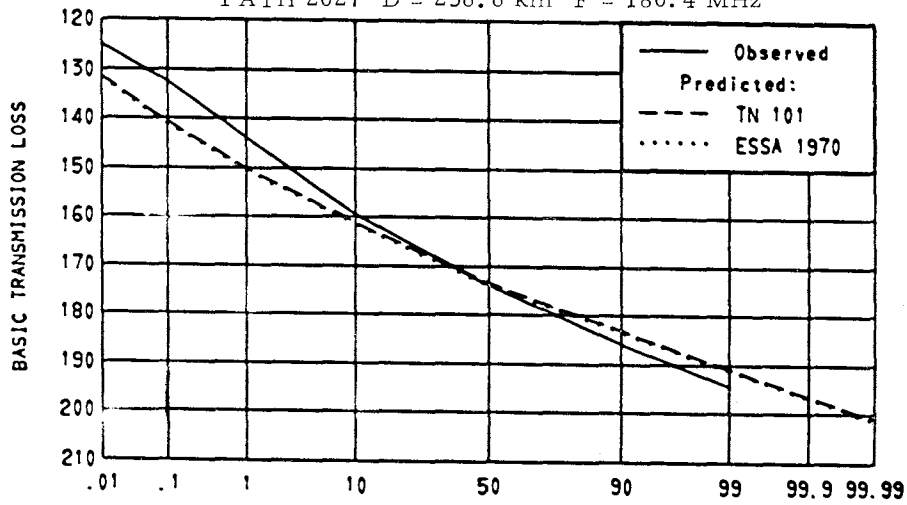


Figure 3.100 Paths 2174 2187

PATHS 2027 2030 SUTTON COLDFIELD ENG - BEDDINGHAM ENG



PATH 2027 D = 236.6 km F = 180.4 MHz



PATH 2030 D = 236.6 km F = 495.0 MHz

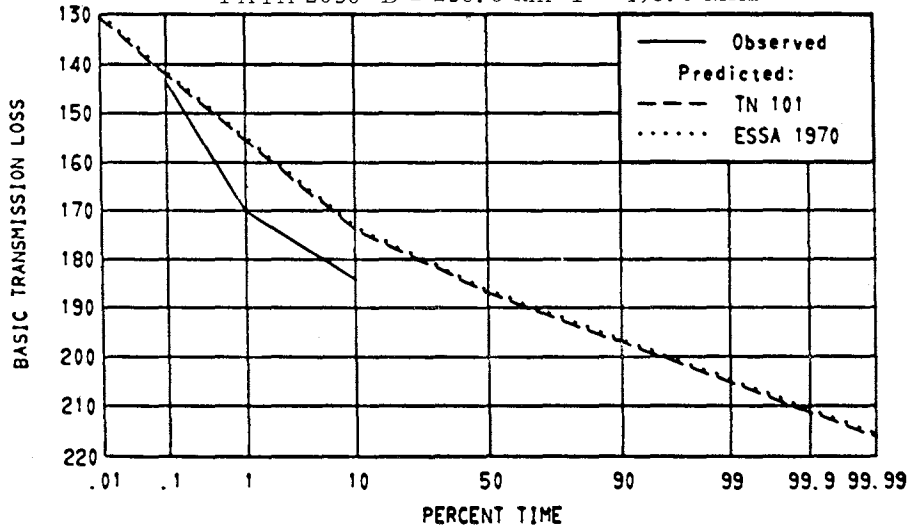


Figure 3.101 Paths 2027 2030

PATH 2156 WINTER HILL ENG - BALDOCK ENG

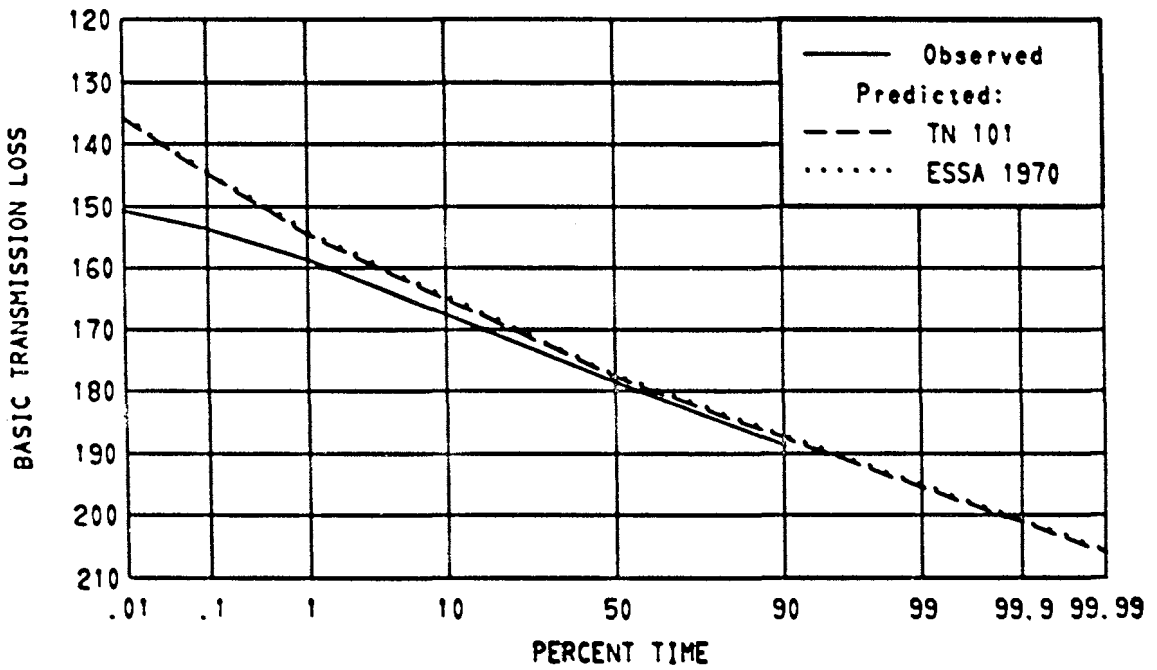
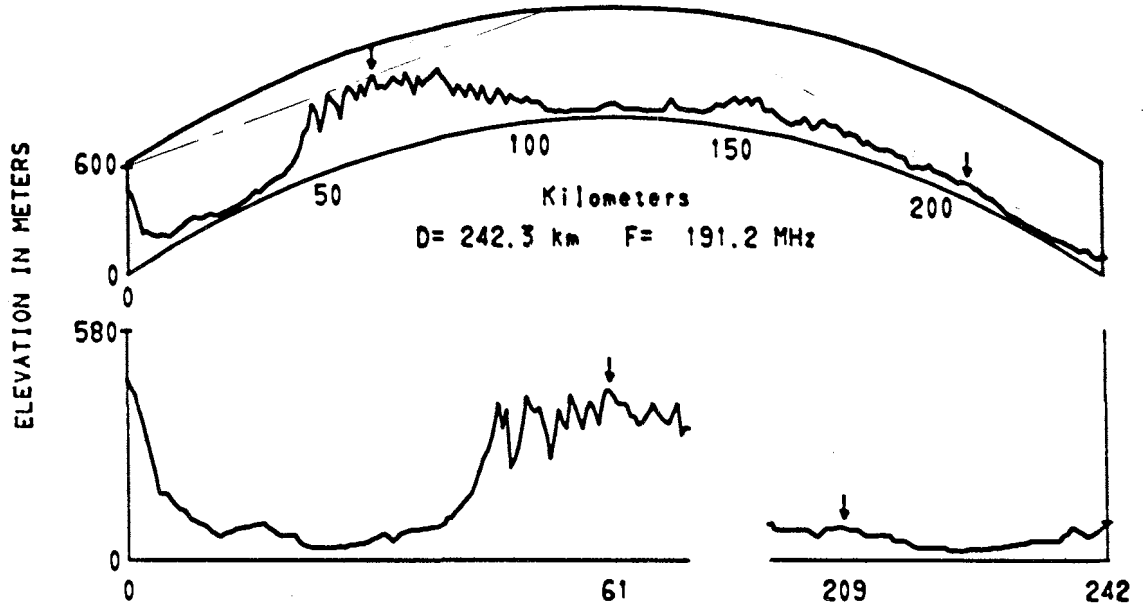


Figure 3.102 Path 2156

PATH 2138 HOLME MOSS ENG - SLOUGH ENG

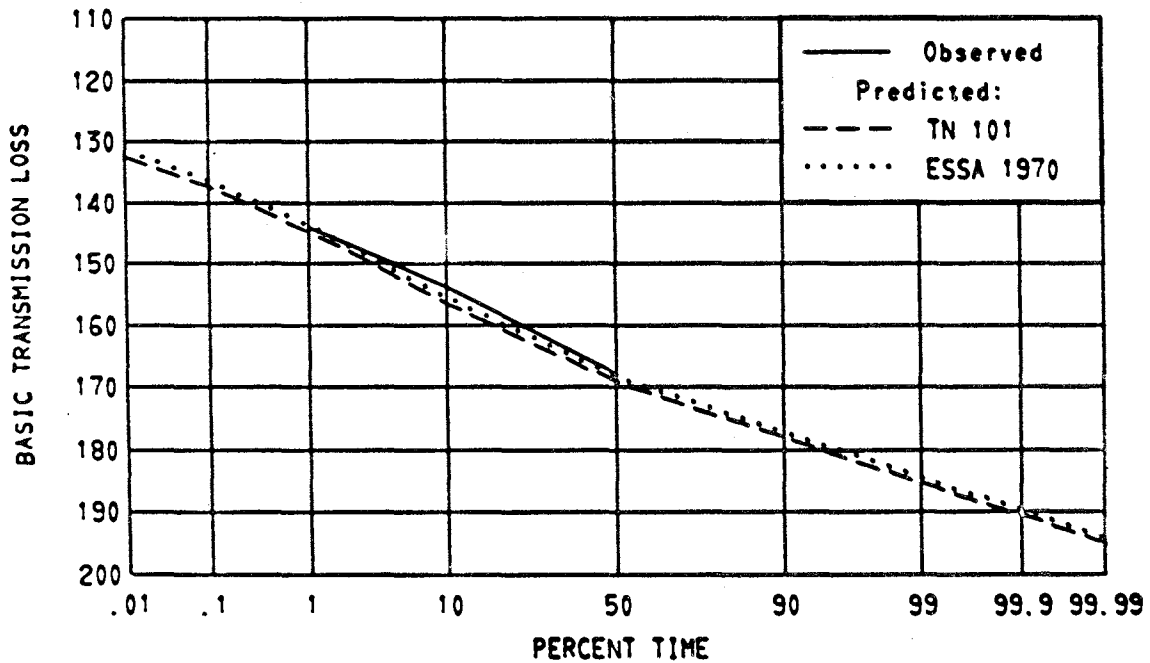
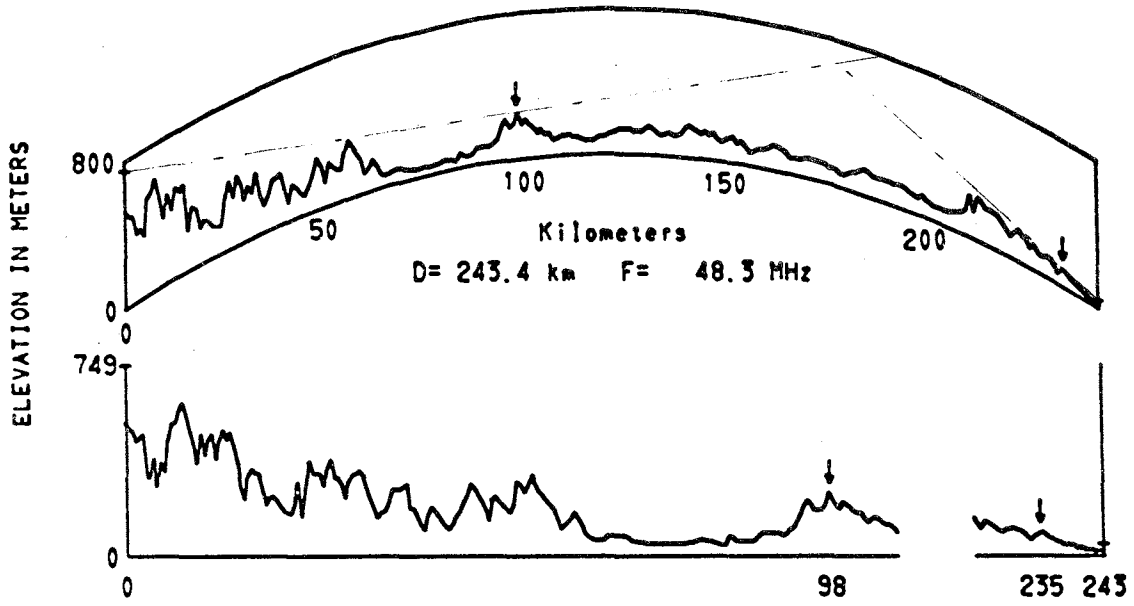


Figure 3.103 Path 2138

PATH 2157 WINTER HILL ENG - DUBLIN IRE

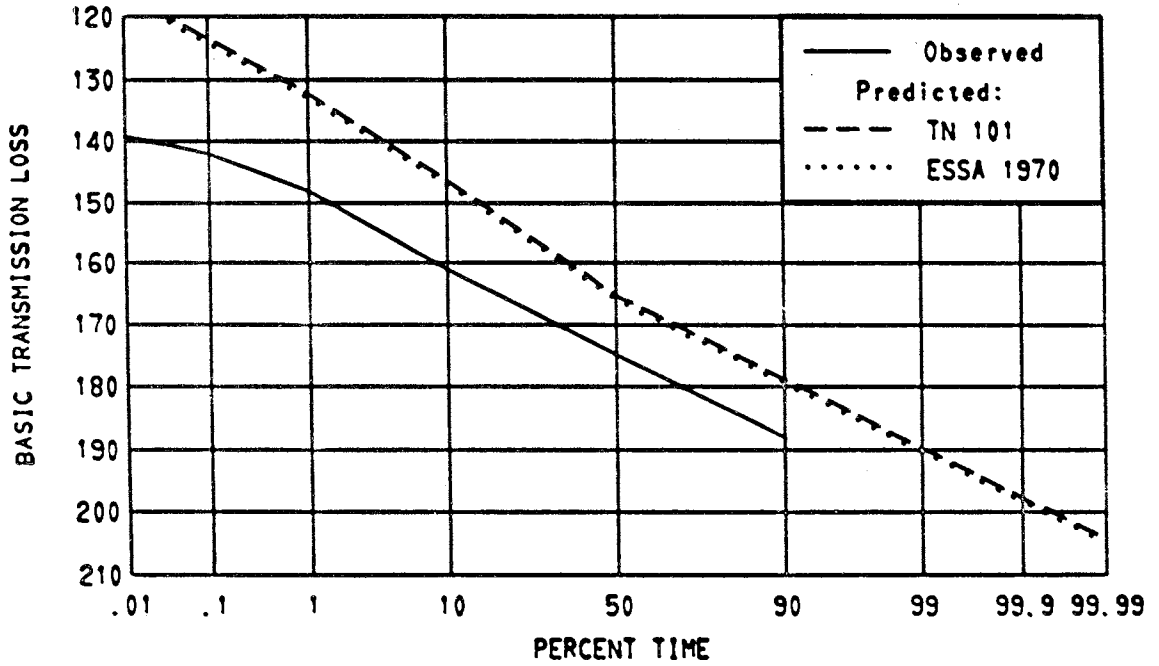
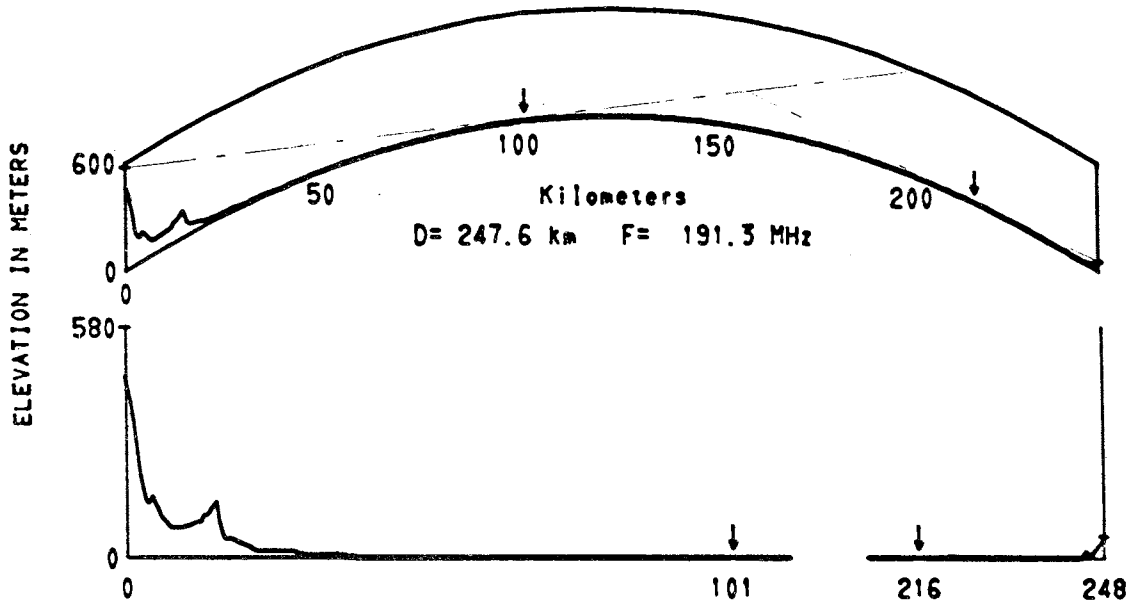


Figure 3.104 Path 2157

PATH 2145 NO HESSARY TOR ENG - BANBURY ENG

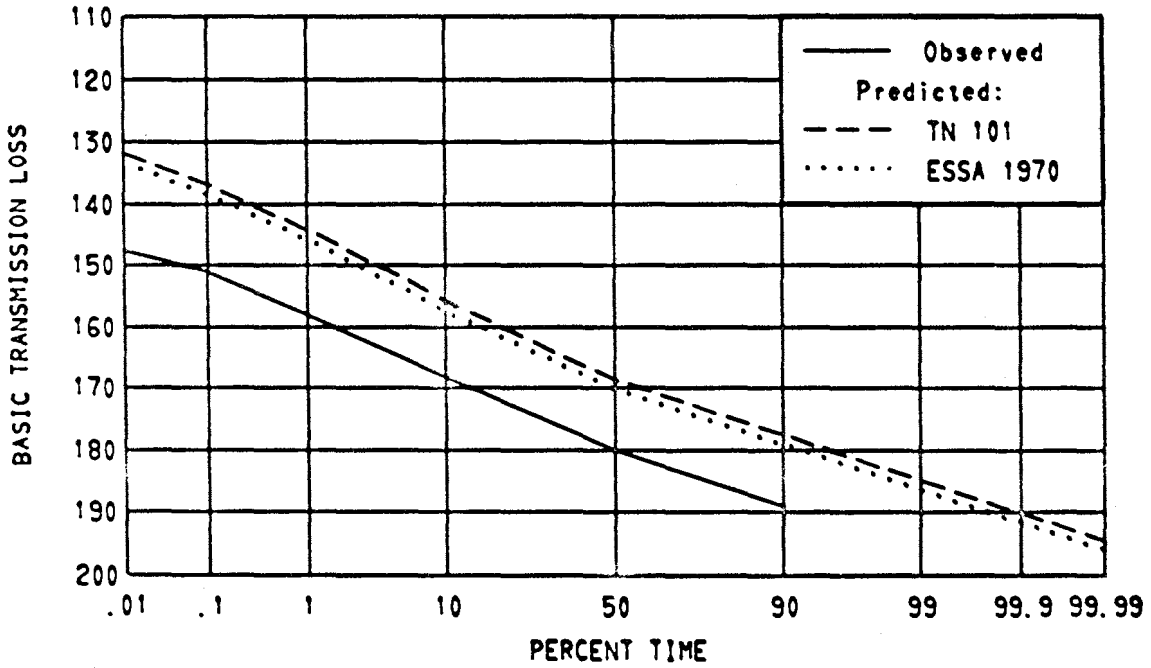
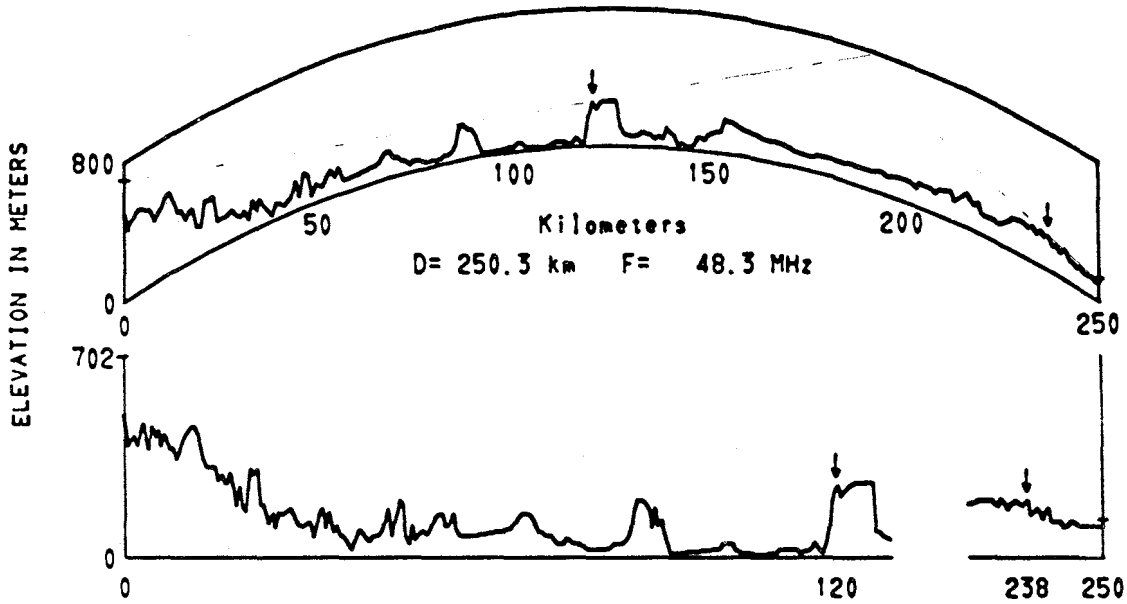


Figure 3.105 Path 2145

PATH 2106 PONTOP PIKE ENG - ABERDEEN SCOT

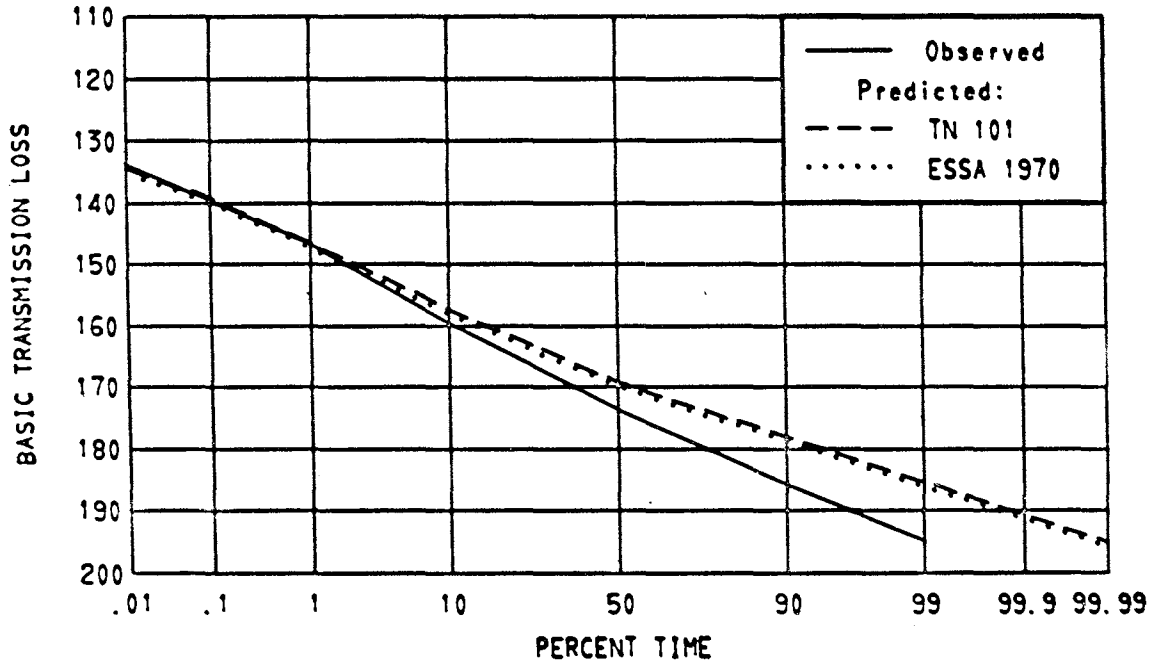
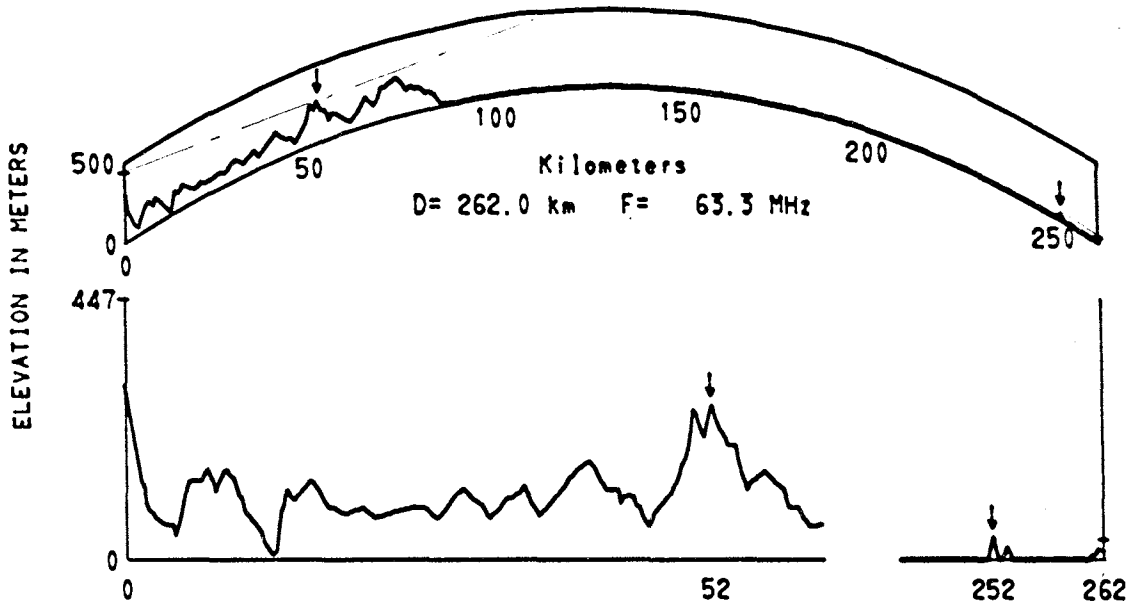
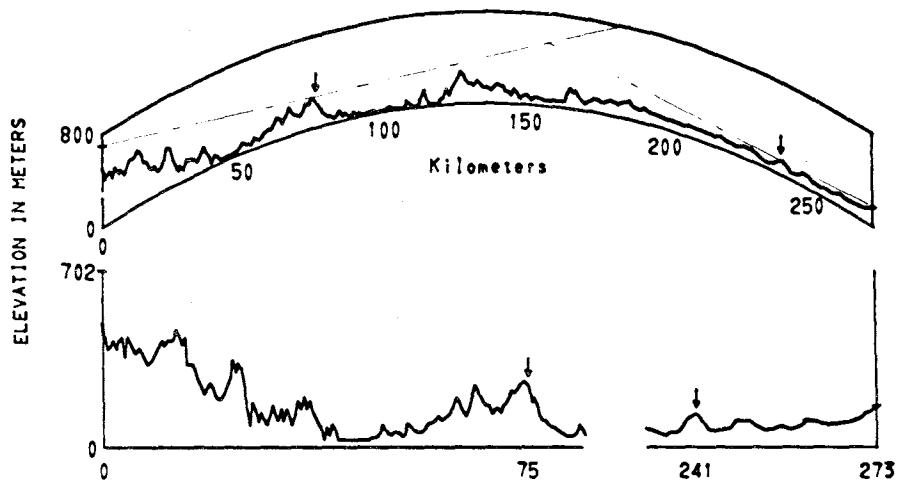
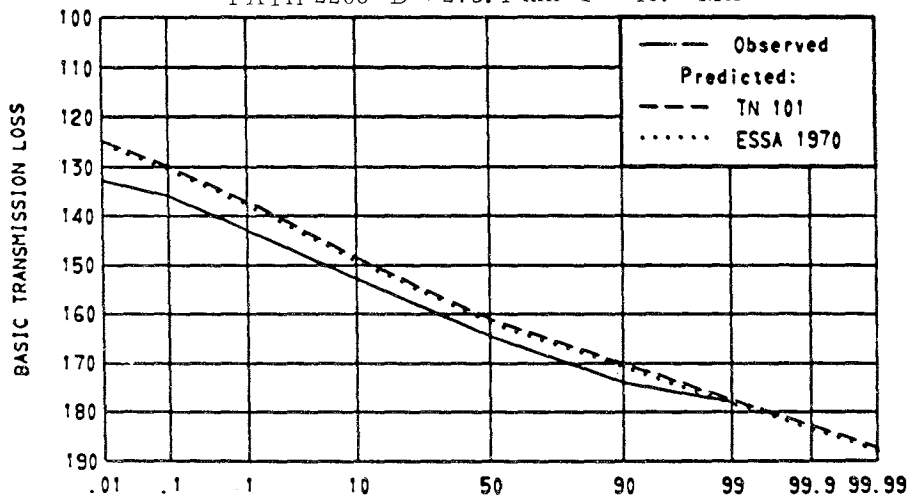


Figure 3.106 Path 2106

PATHS 2206 2207 NO HESSARY TOR ENG - MURSLEY ENG



PATH 2206 D = 273.1 km F = 48.2 MHz



PATH 2207 D = 273.1 km F = 88.1 MHz

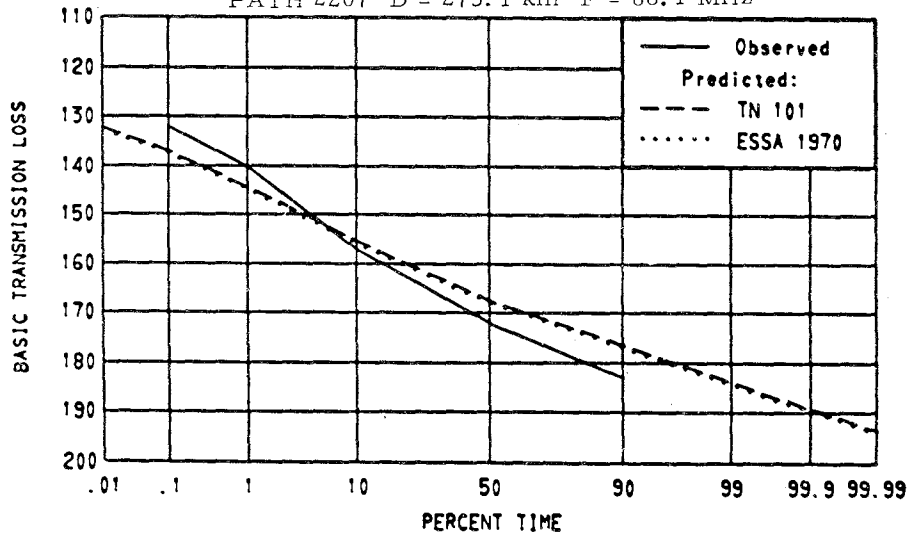
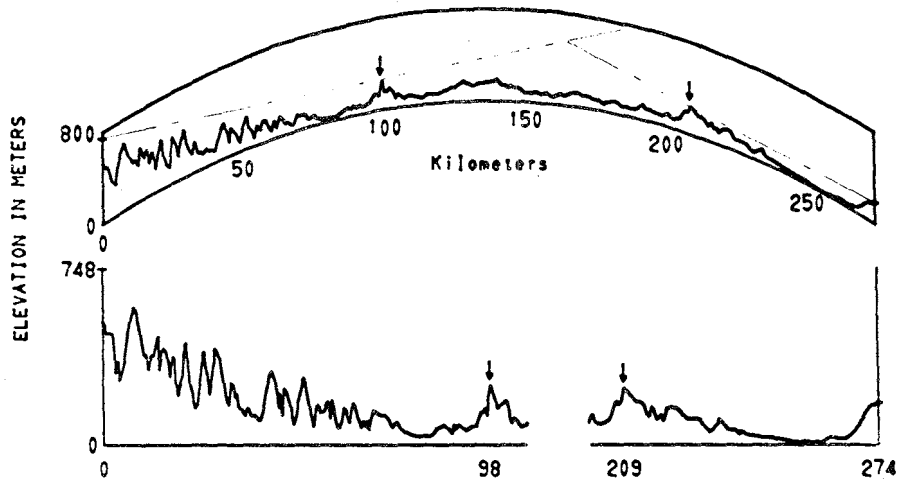
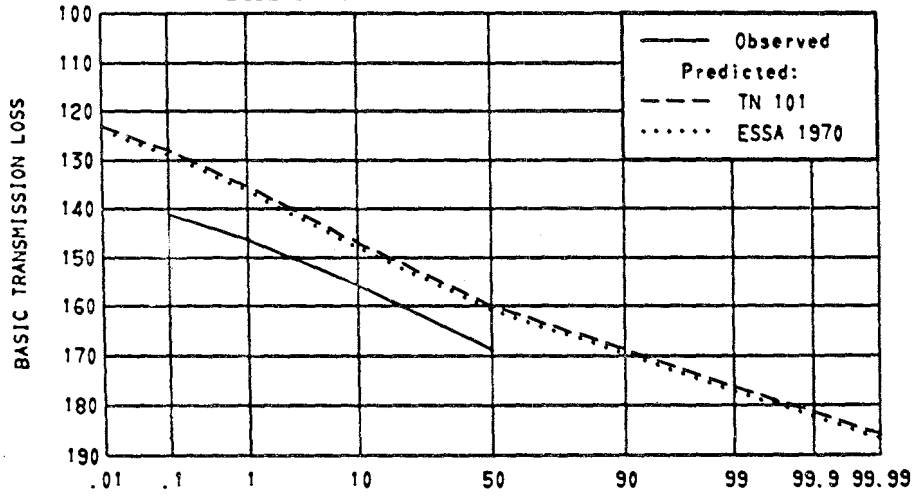


Figure 3.107 Paths 2206 2207

PATHS 2032 2217 HOLME MOSS ENG - KINGSWOOD ENG



PATH 2217 D = 273.8 km F = 48.3 MHz



PATH 2032 D = 273.8 km F = 560.0 MHz

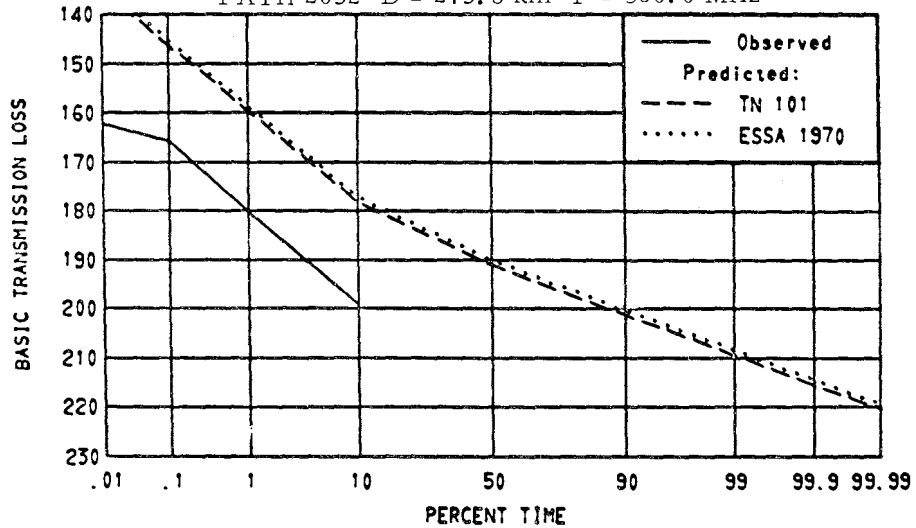


Figure 3.108 Paths 2032 2217

PATH 2194 BELOWDA ENG - WIDLEY ENG

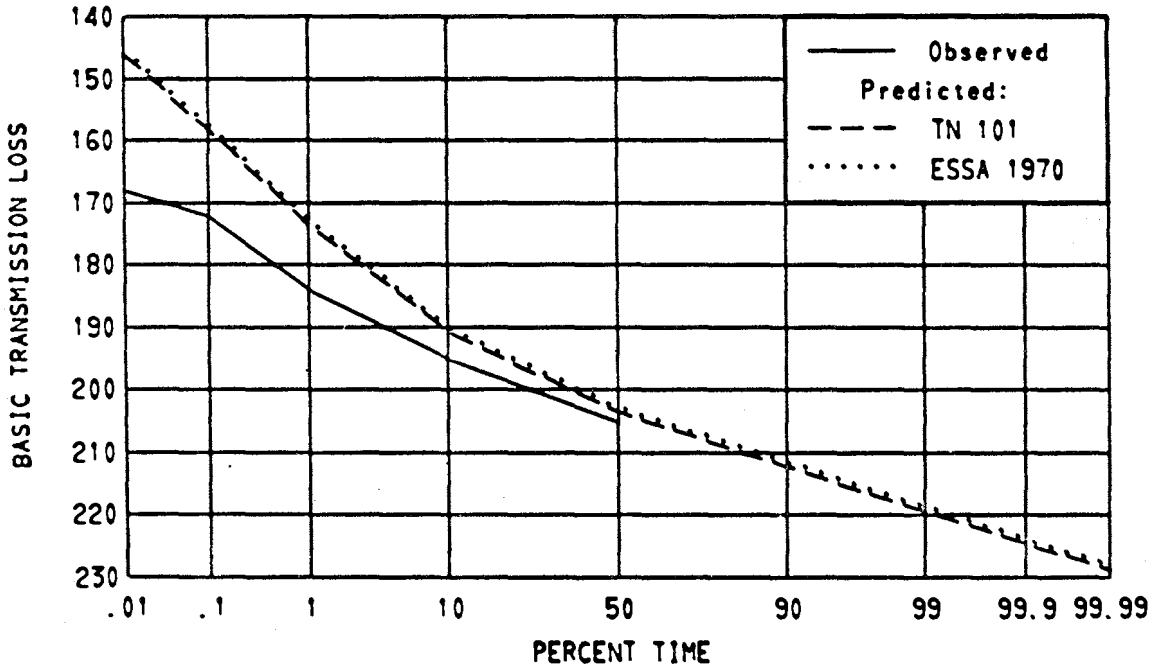
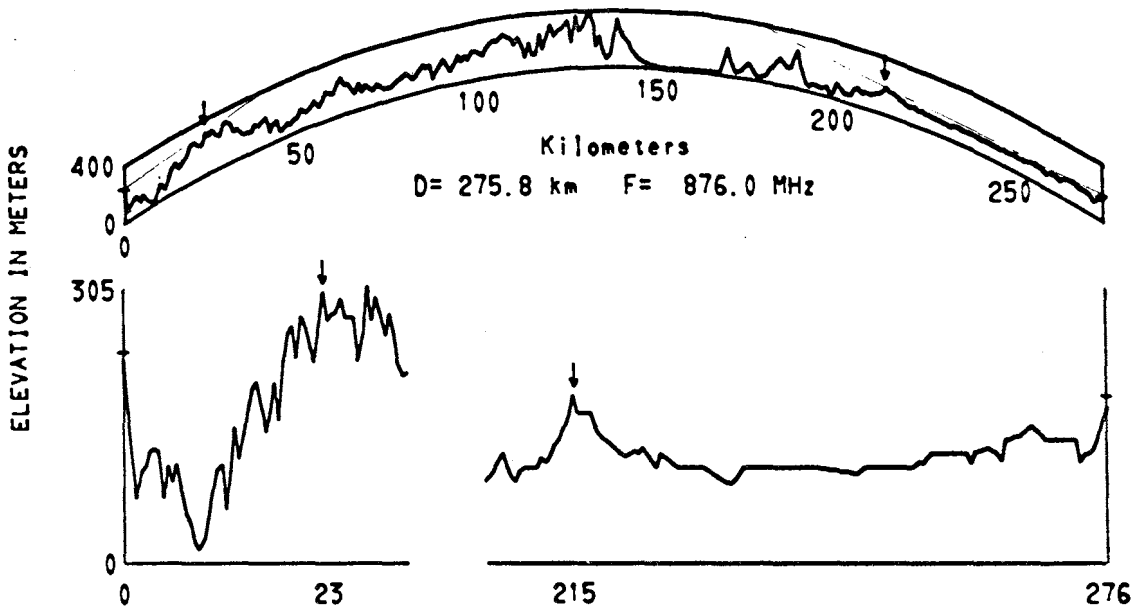


Figure 3.109 Path 2194

PATH 2163 CRYSTAL PALACE ENG - STOKE FLEMING ENG

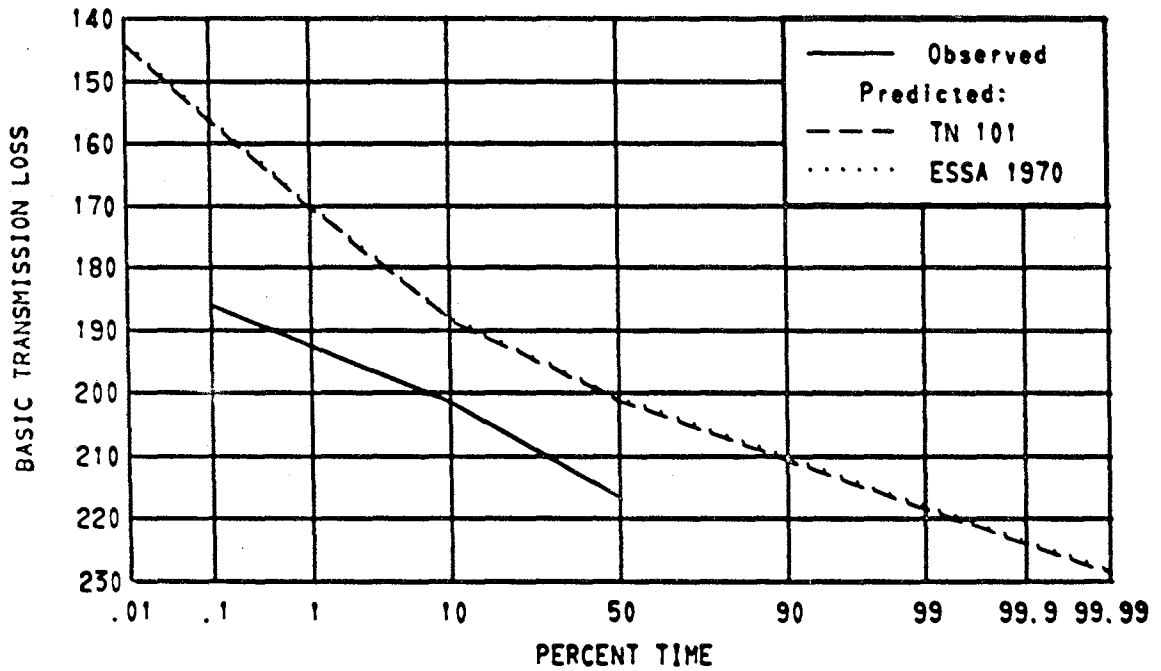
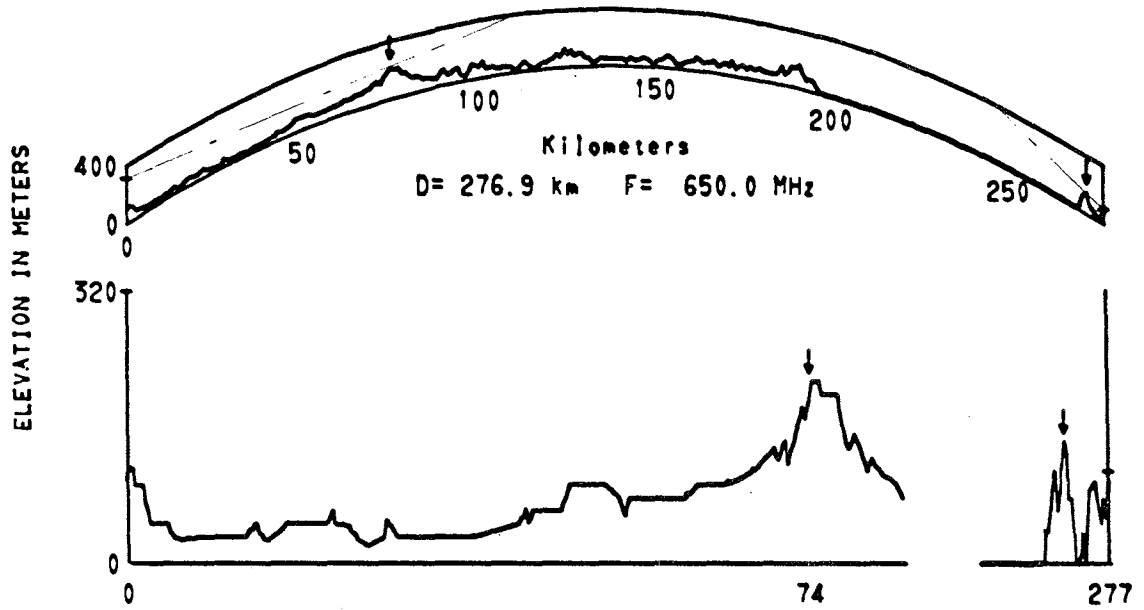
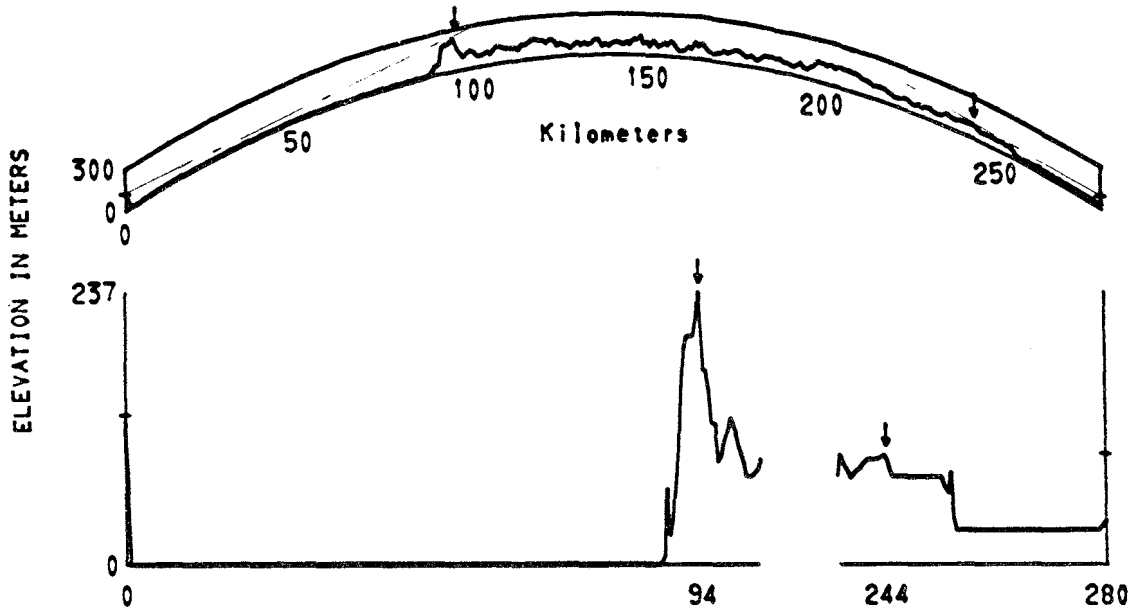


Figure 3.110 Path 2163

PATHS 2063 2064 START POINT ENG - WEMBLEY ENG



PATHS 2063 2064 D = 279.7 km F = 9640.0, 3480.0 MHz

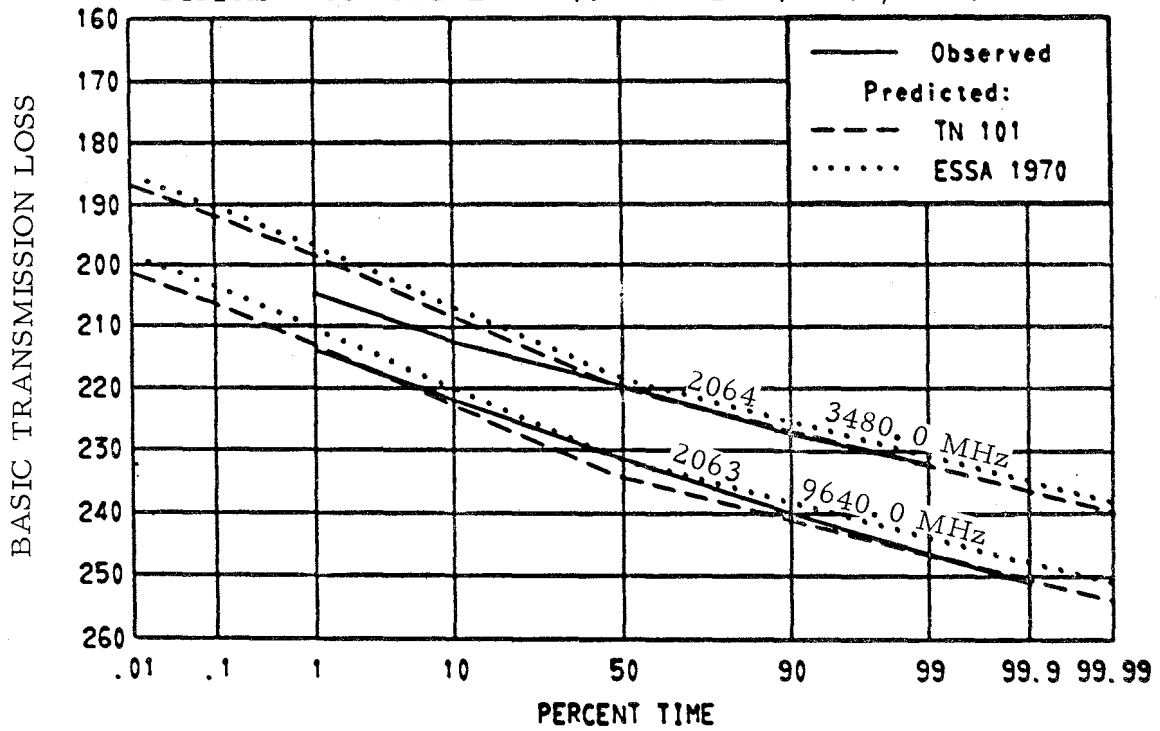


Figure 3.111 Paths 2063 2064

PATH 2218 HOLME MOSS ENG - REIGATE ENG

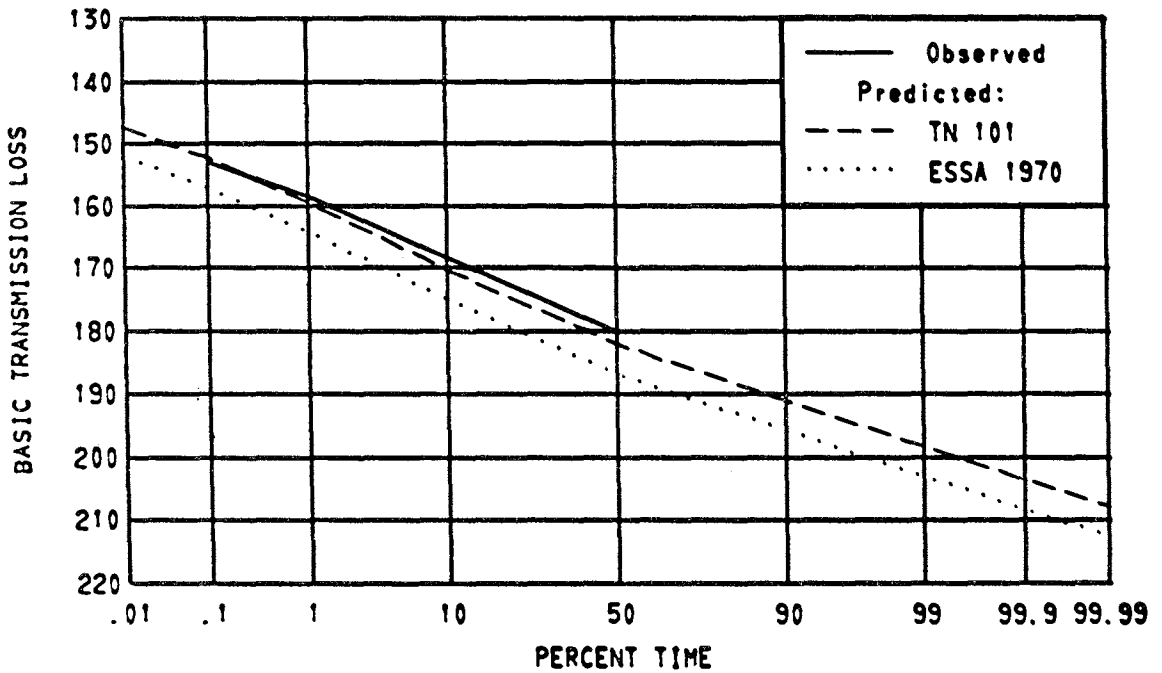
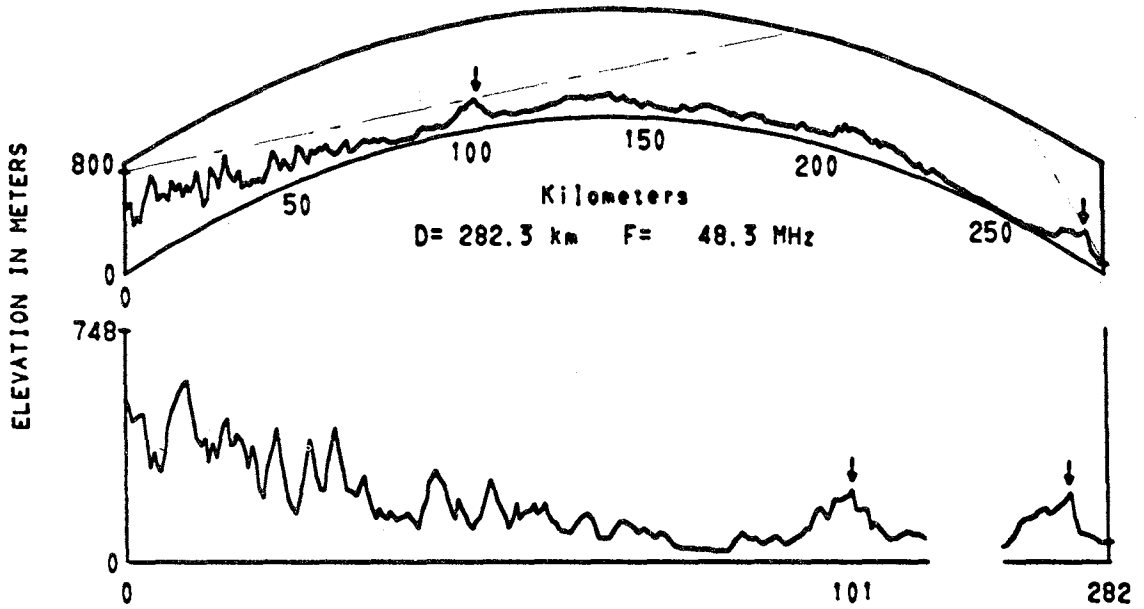


Figure 3.112 Path 2218

PATH 2219 HOLME MOSS ENG - HOOKWOOD ENG

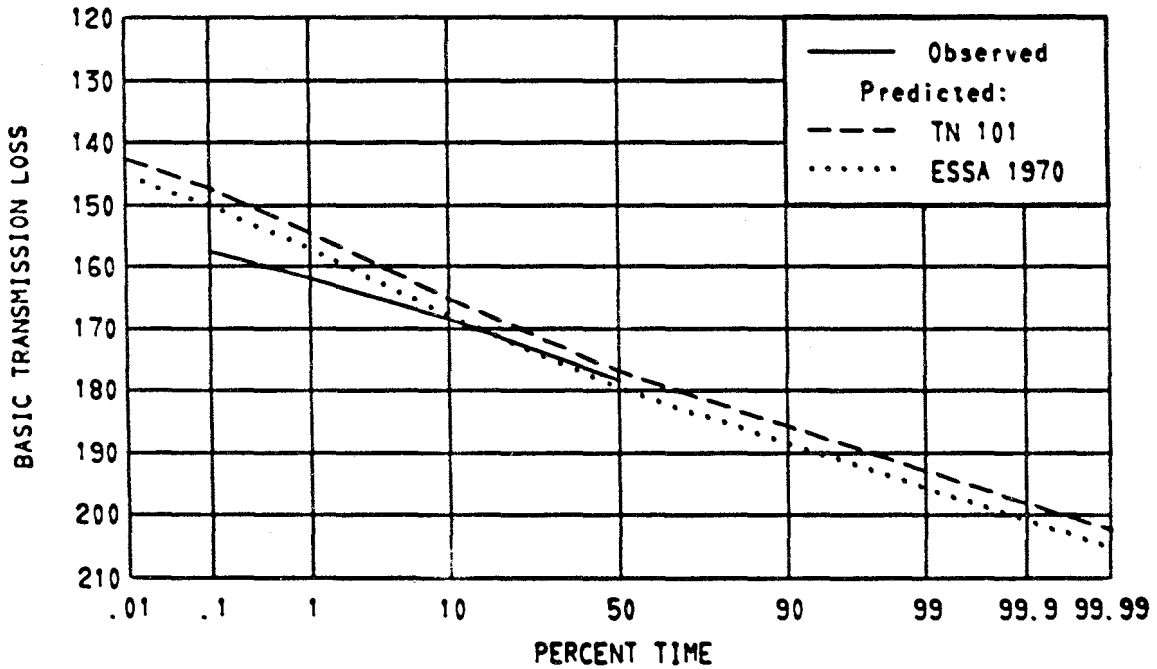
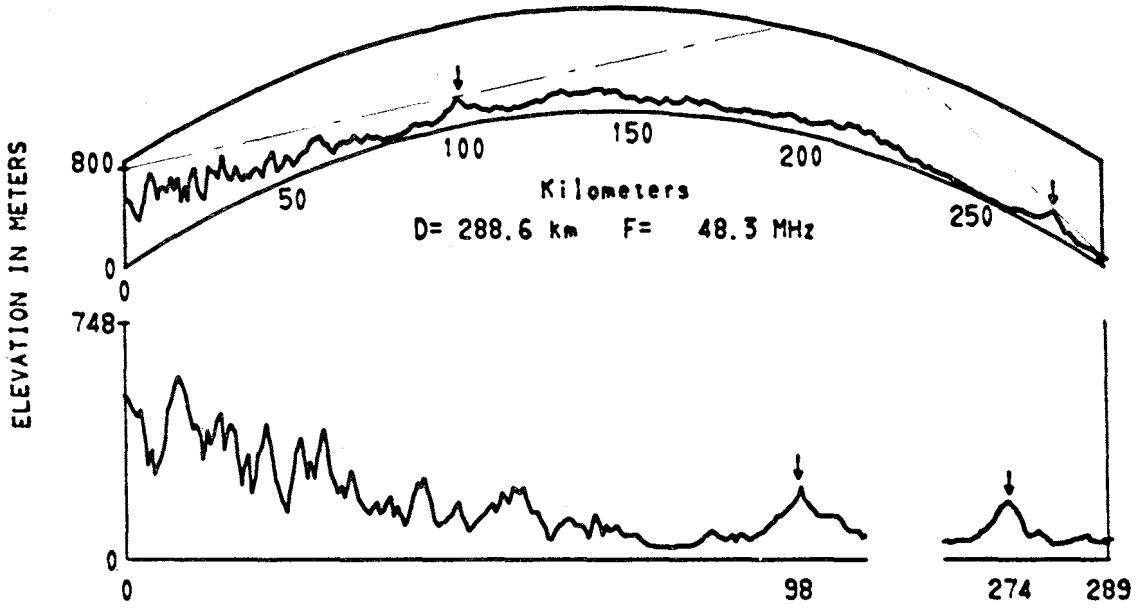


Figure 3.113 Path 2219

PATH 2159 CHILLERTON DOWN ENG - LESWIDDEN ENG

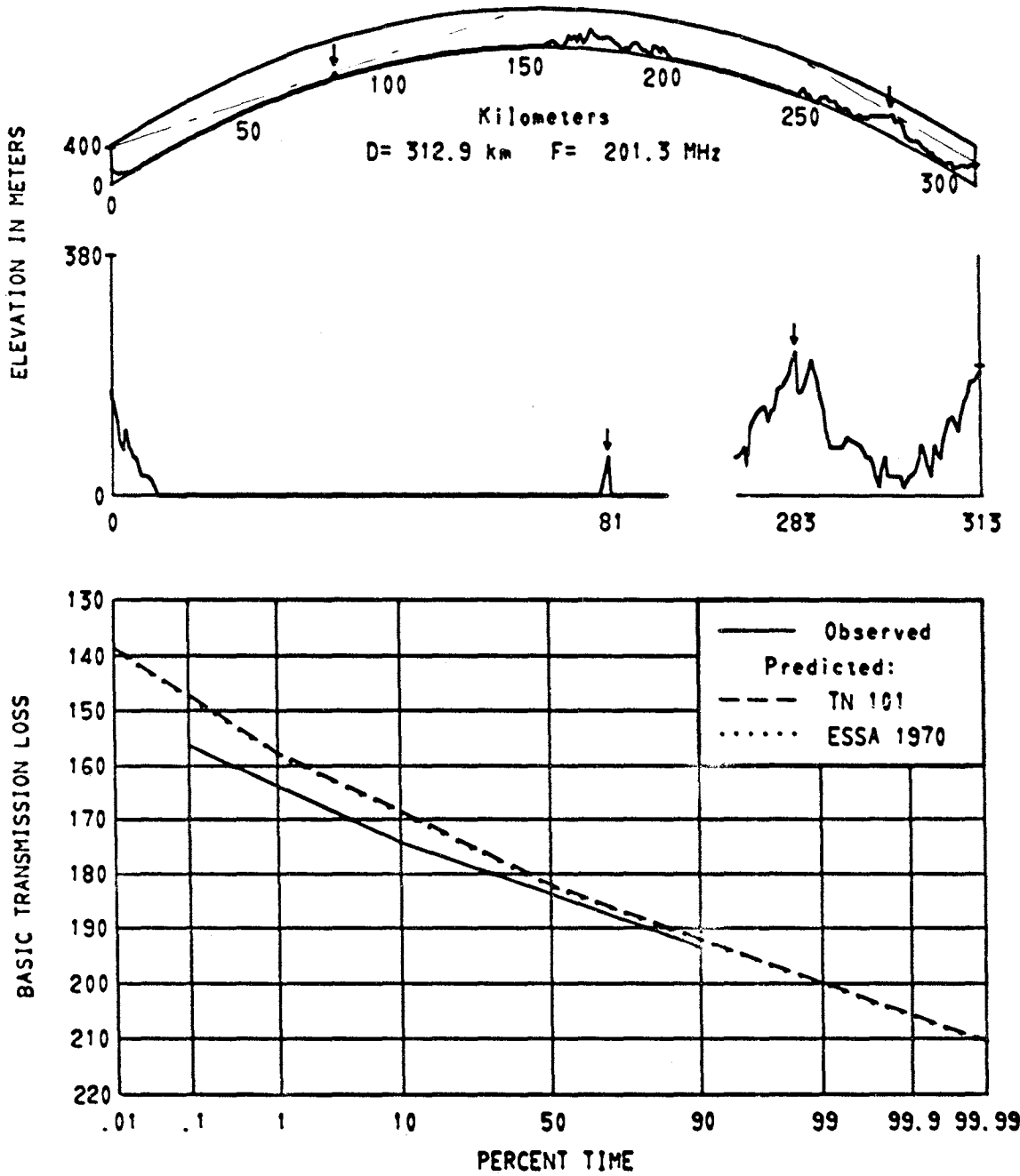


Figure 3.114 Path 2159

PATH 2012 WROTHAM ENG - PANNAL ASH ENG

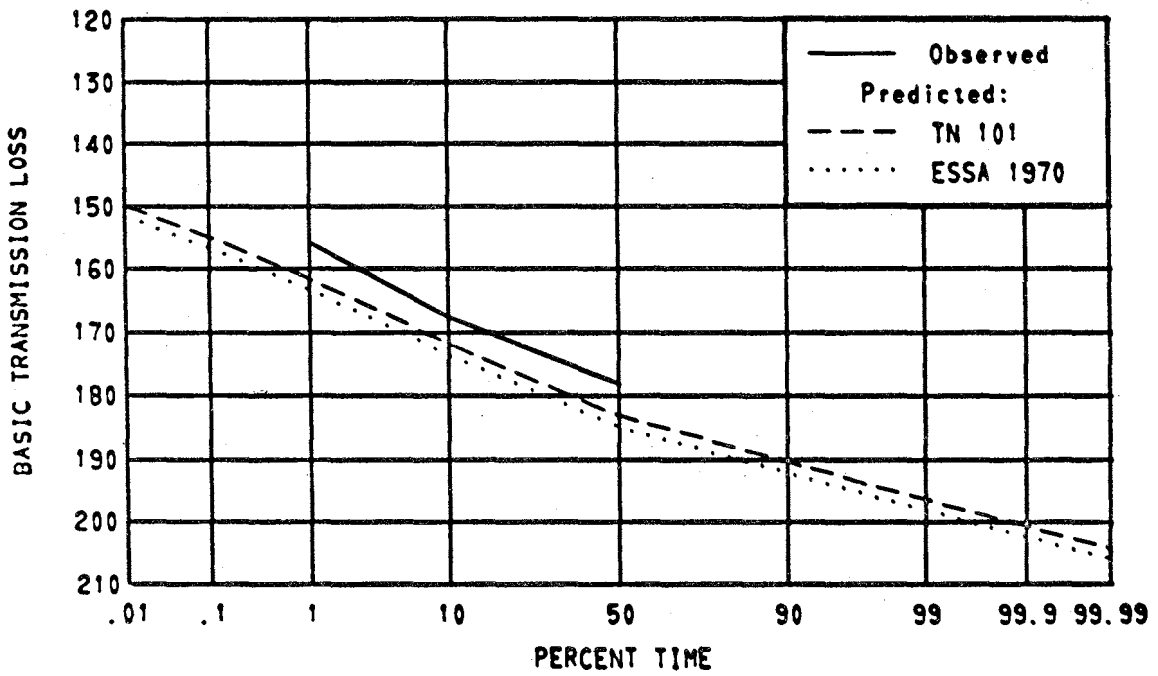
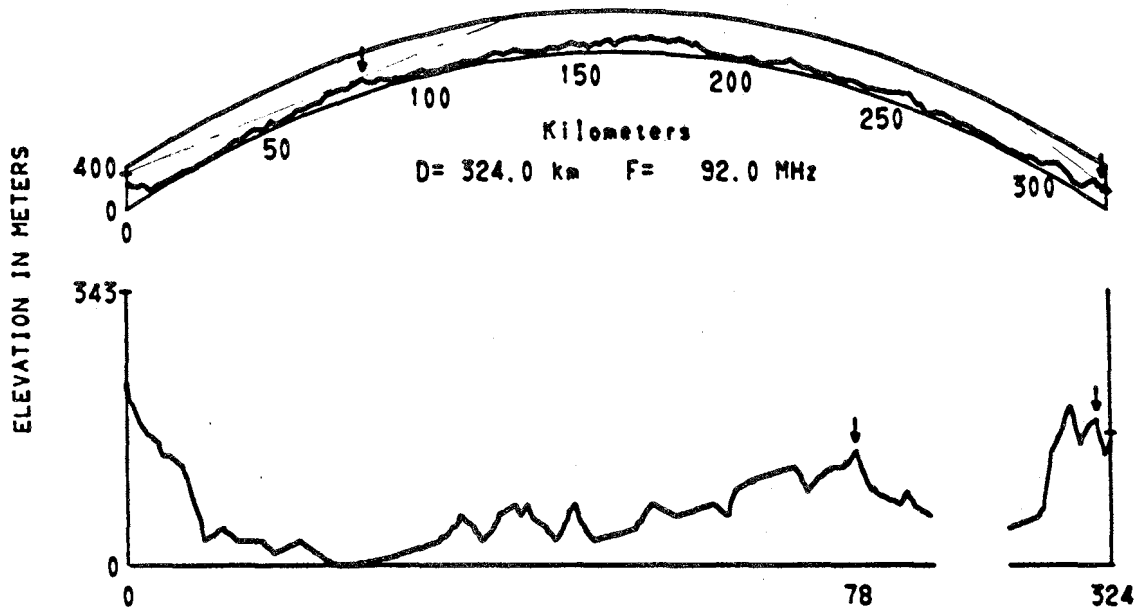


Figure 3.115 Path 2012

PATH 2033 HOLME MOSS ENG - BEDDINGHAM ENG

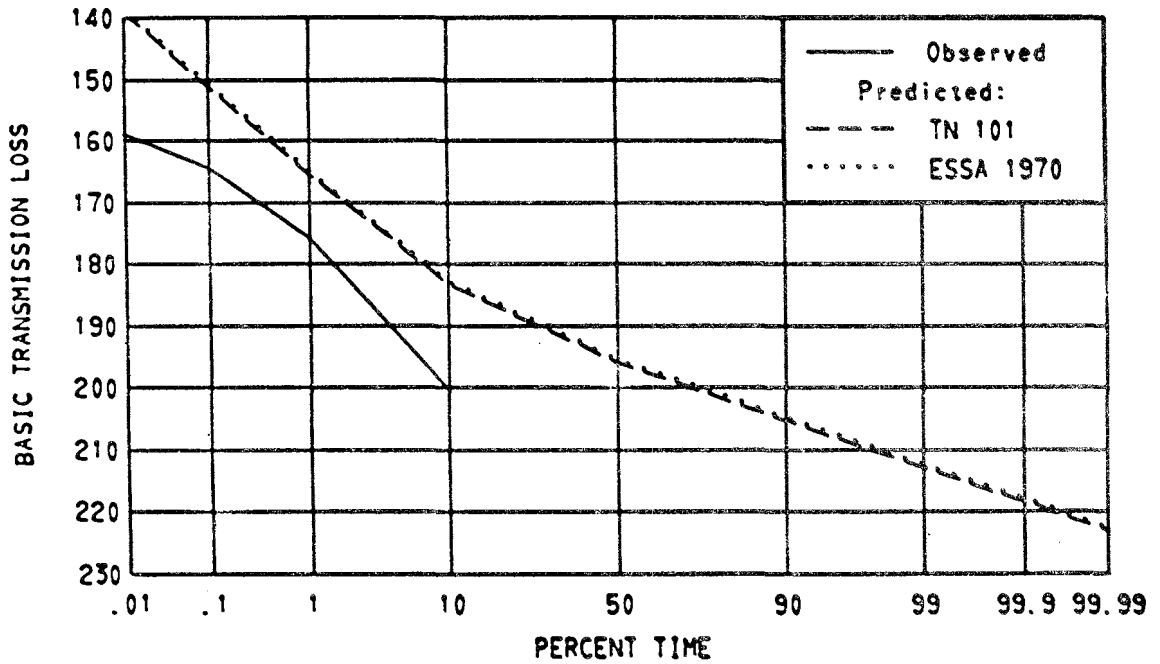
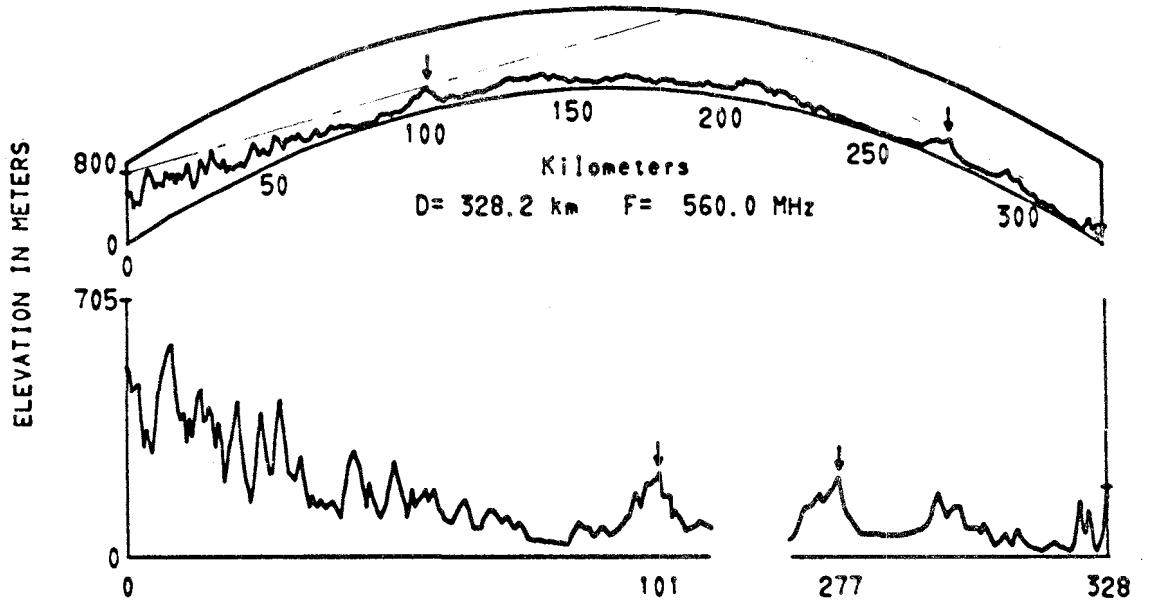


Figure 3.116 Path 2033

PATHS 2042 2047 2103 PONTOP PIKE ENG - MURSLEY ENG

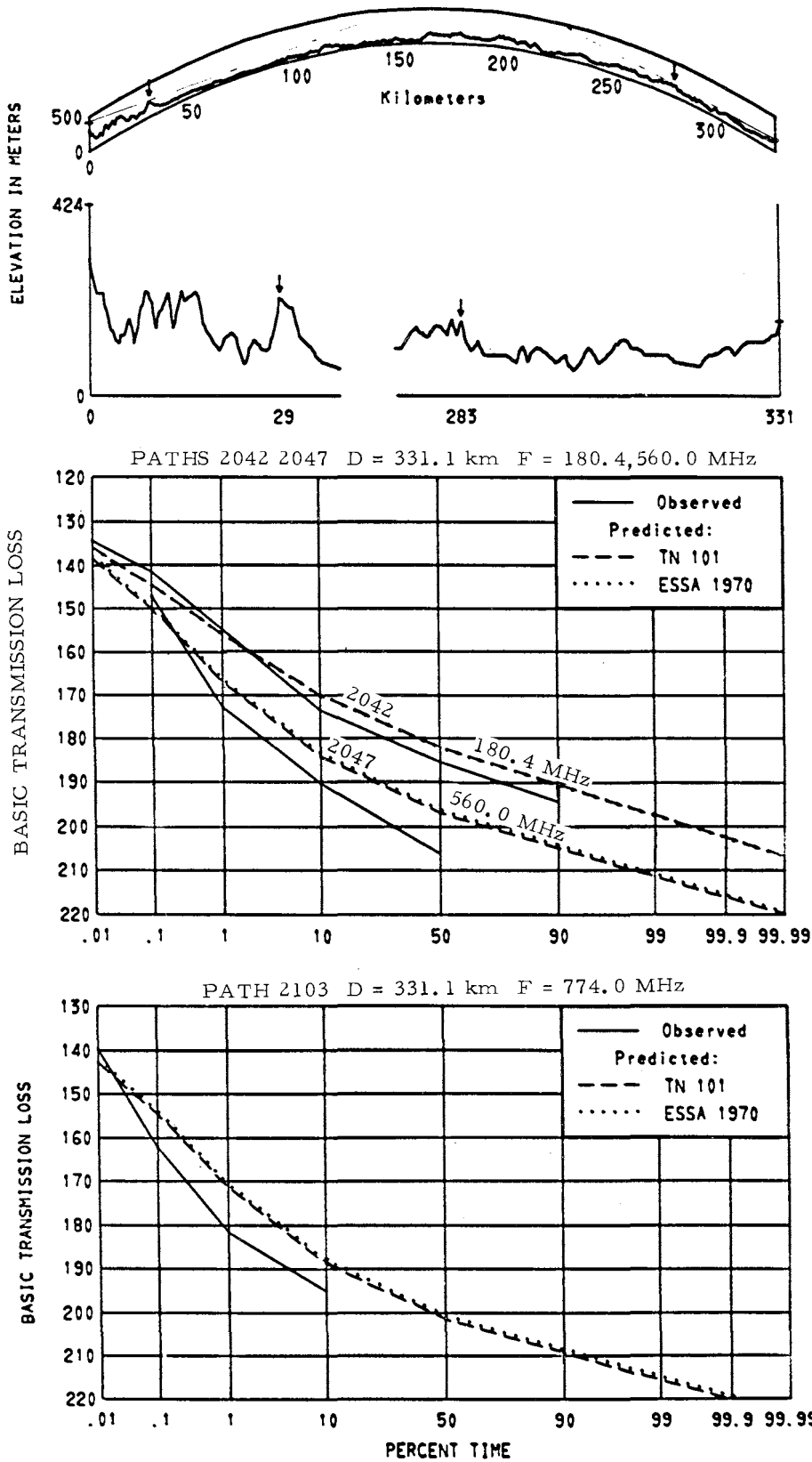


Figure 3.117 Paths 2042 2047 2103

PATH 2146 NO HESSARY TOR ENG - CORK IRE

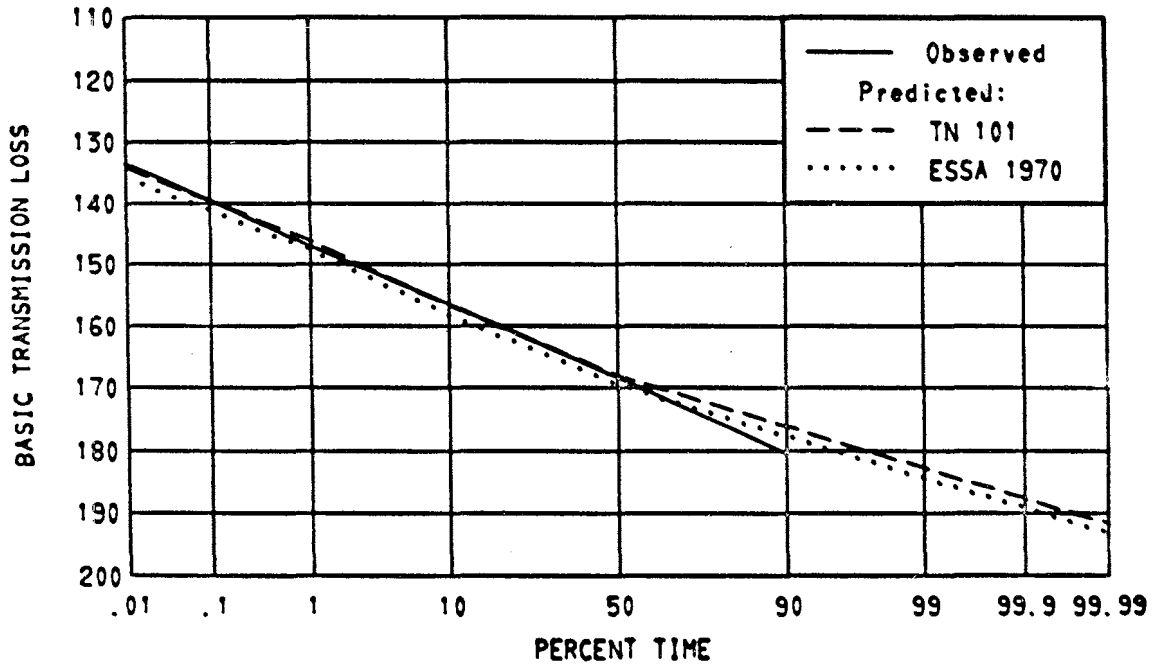
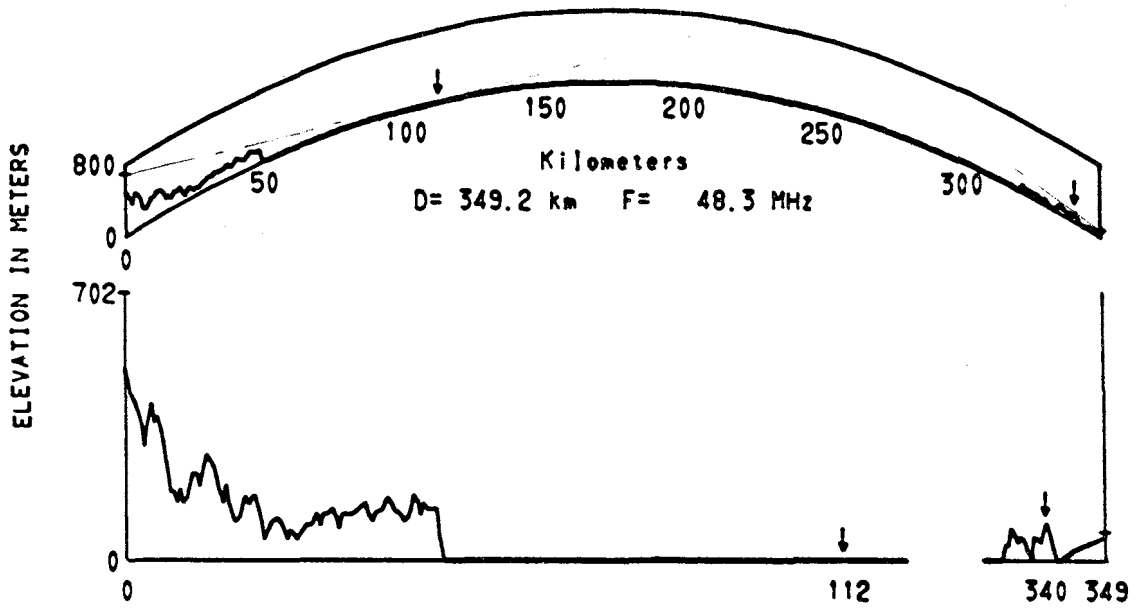


Figure 3.118 Path 2146

PATH 2020 SUTTON COLDFIELD ENG - PORTREATH ENG

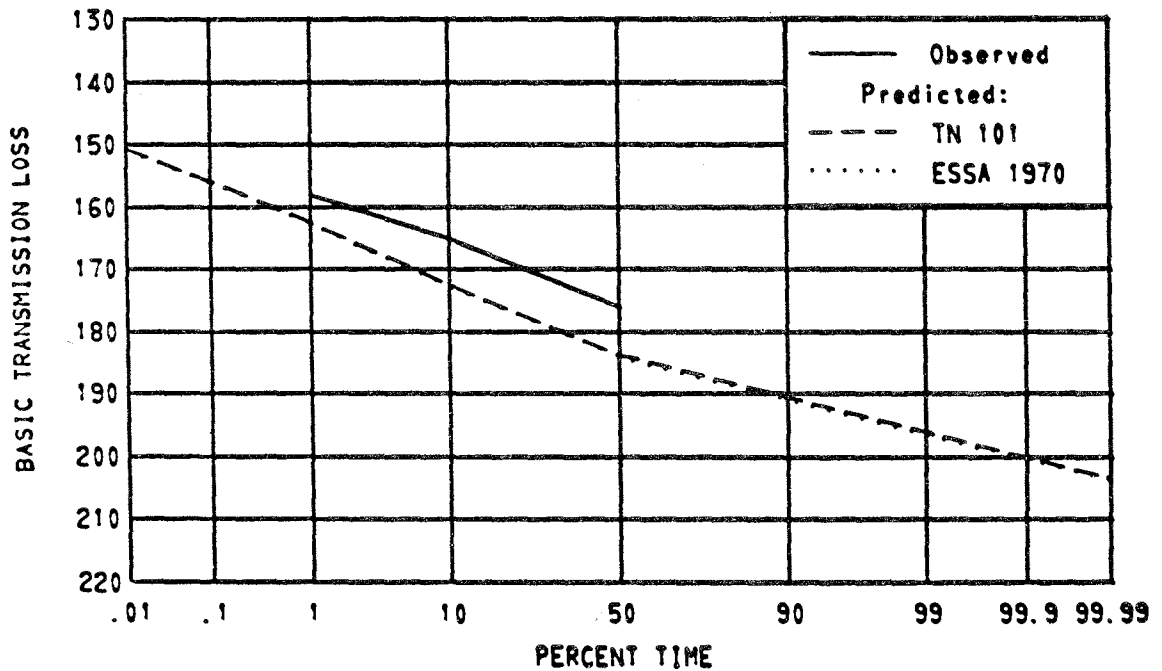
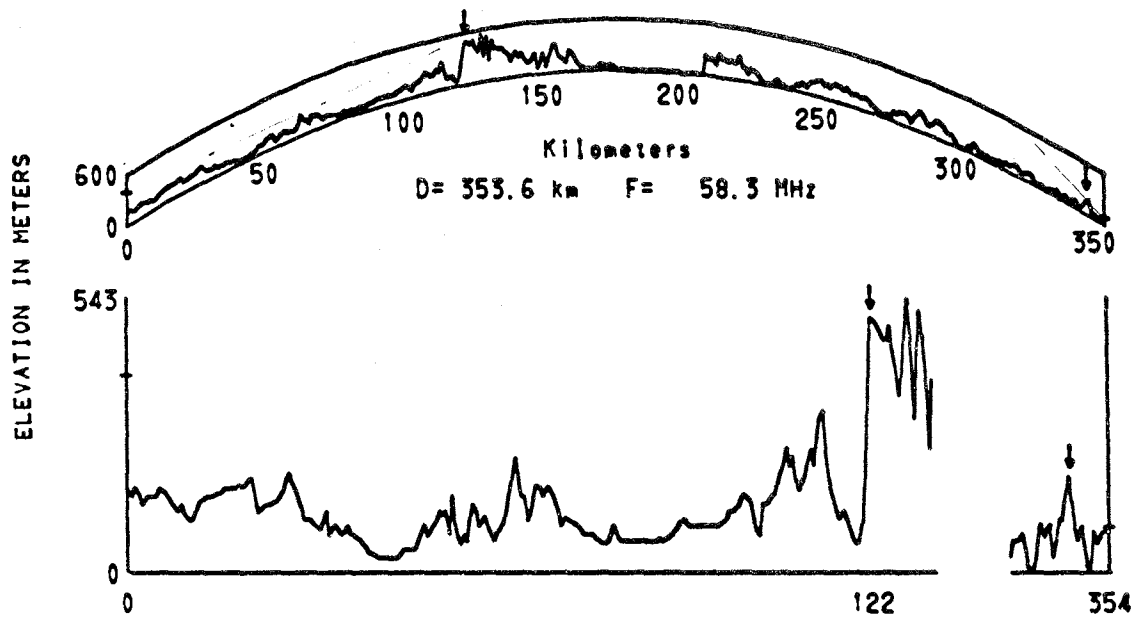


Figure 3.119 Path 2020

PATH 2164 CRYSTAL PALACE ENG - DARLINGTON ENG

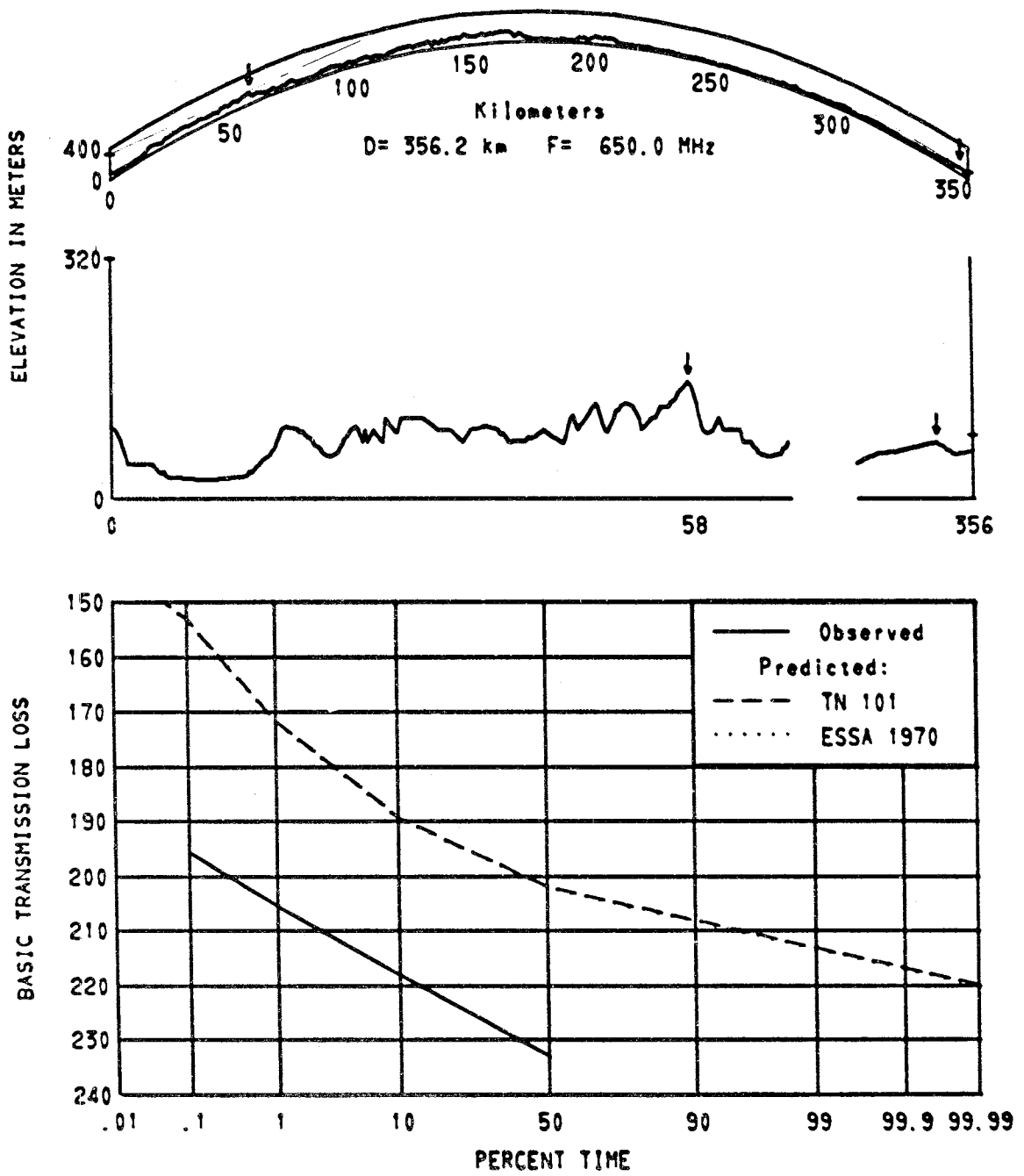


Figure 3.120 Path 2164

PATH 2127 ST HILARY DOWN WALES - CORK IRE

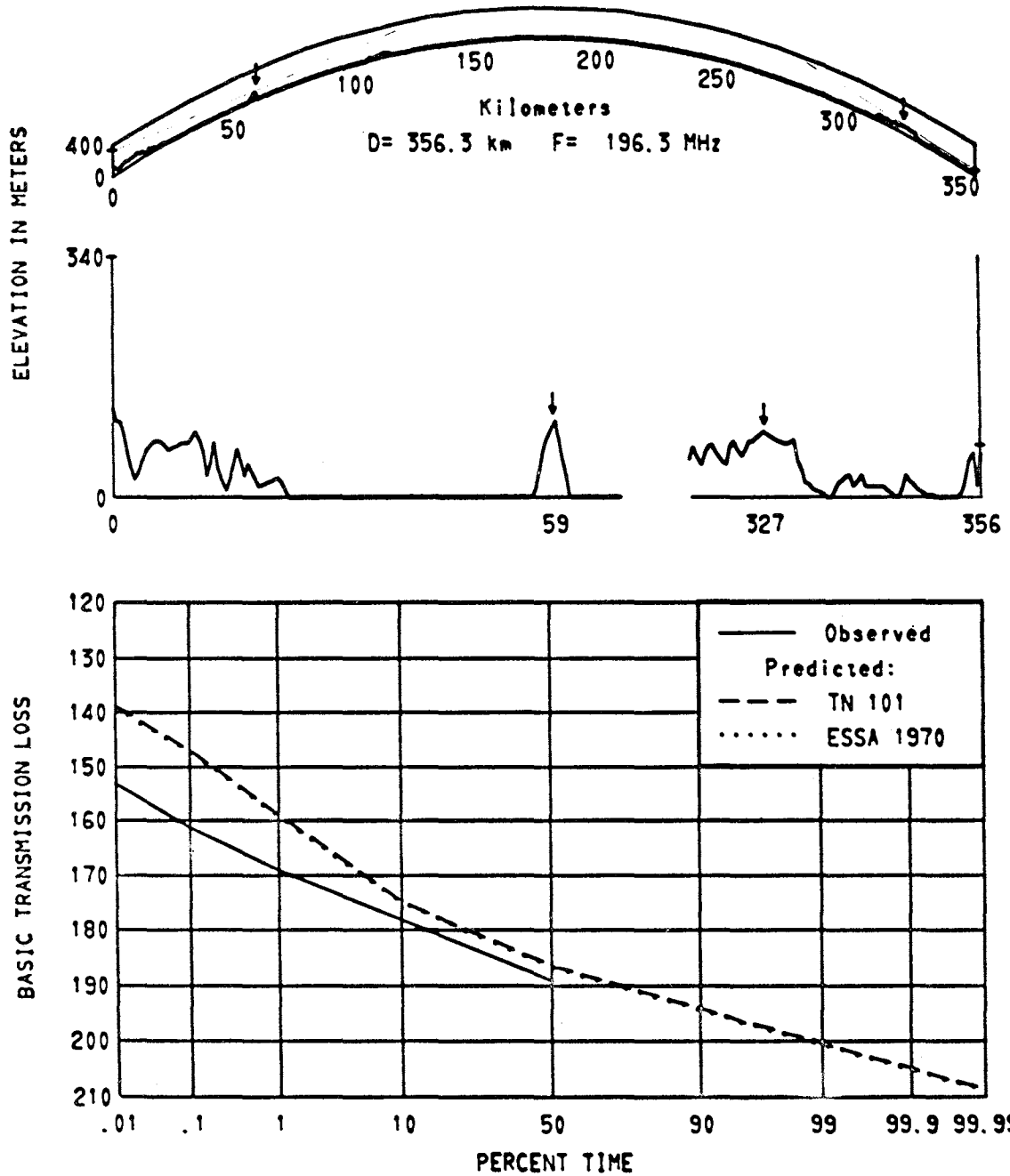


Figure 3.121 Path 2127

PATH 2067 START POINT ENG - WITNESHAM ENG

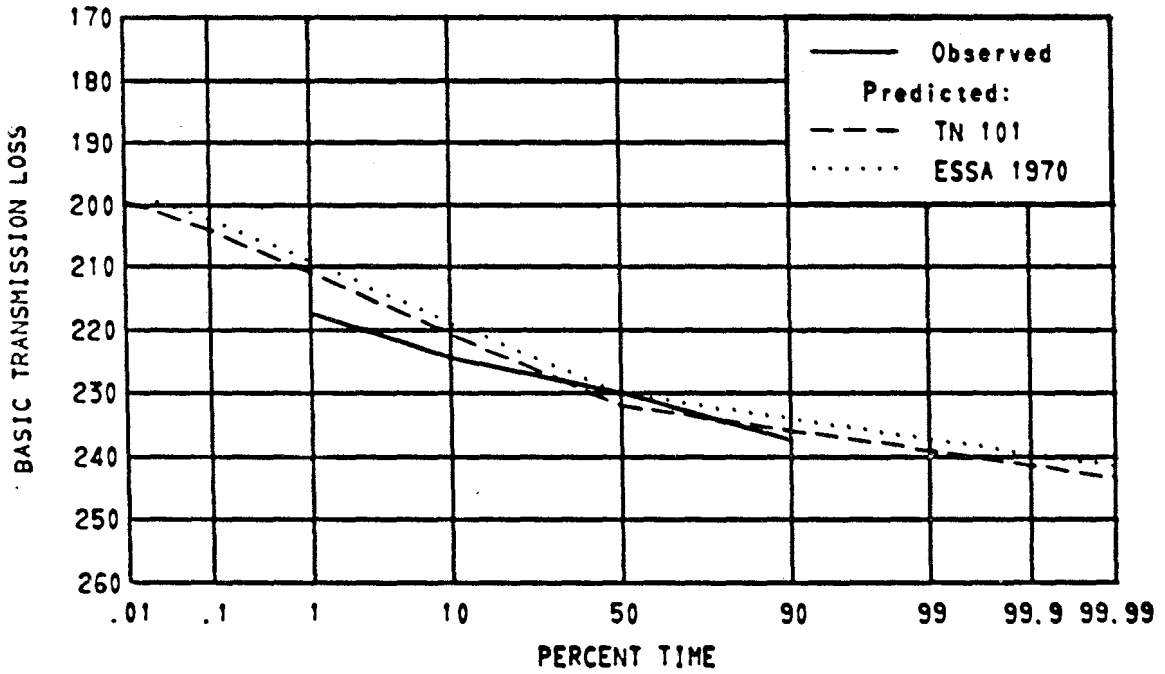
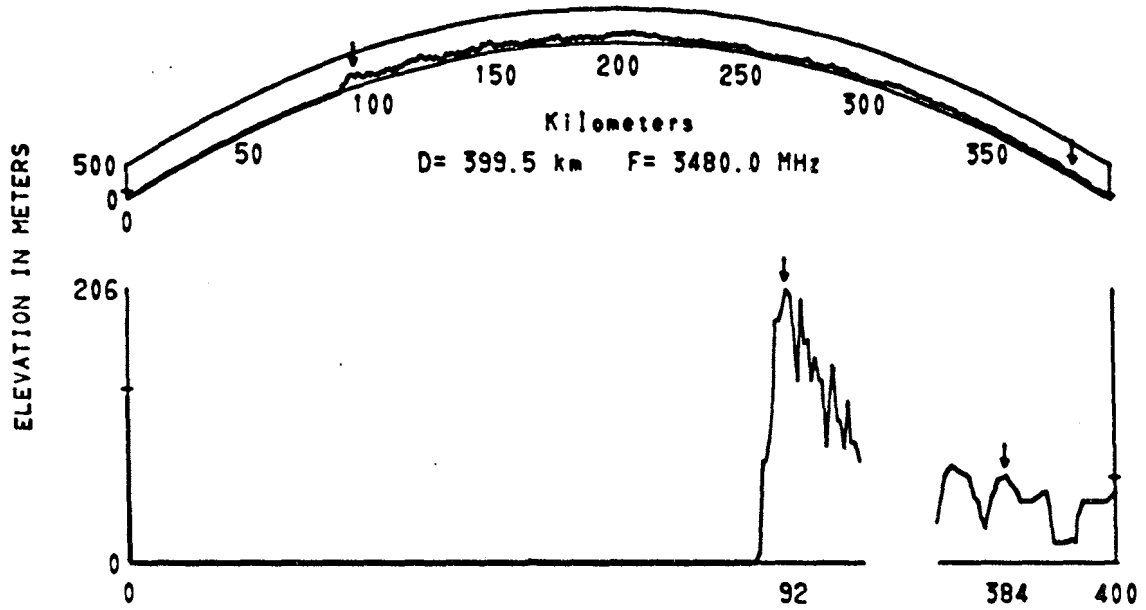


Figure 3.122 Path 2067

PATH 2016 WROTHAM ENG - REDRUTH ENG

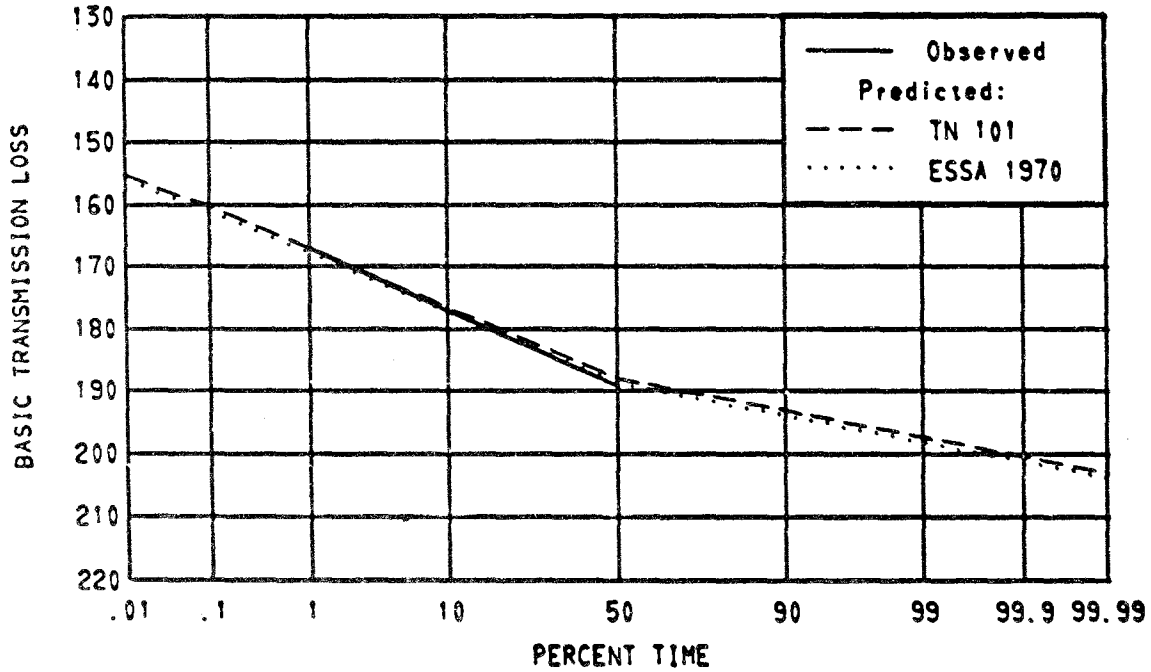
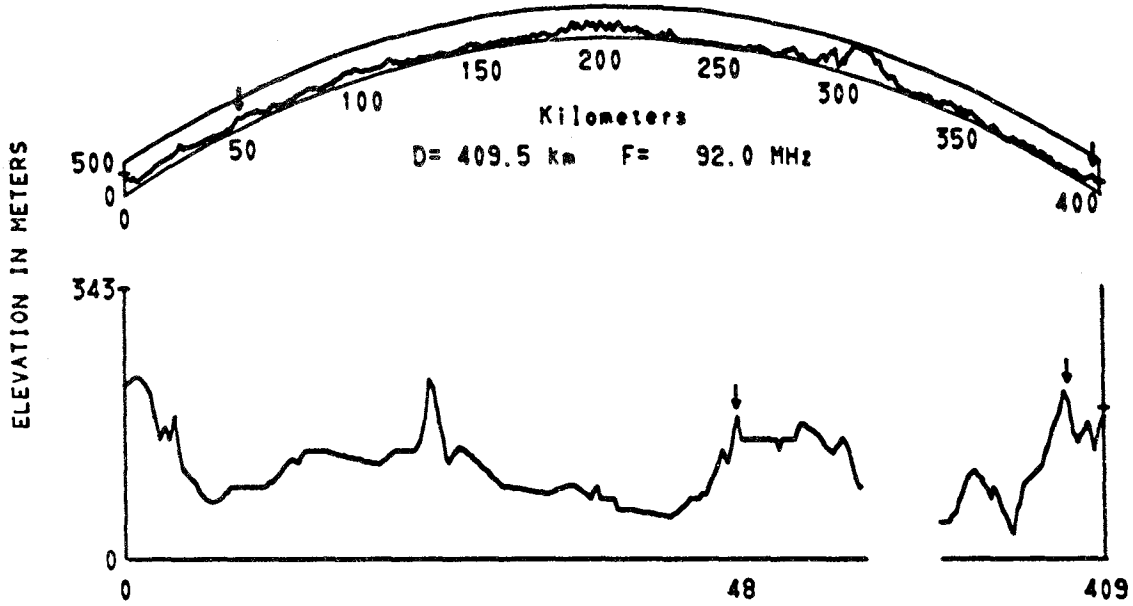


Figure 3.123 Path 2016

PATH 2015 WROTHAM ENG - PORTREATH ENG

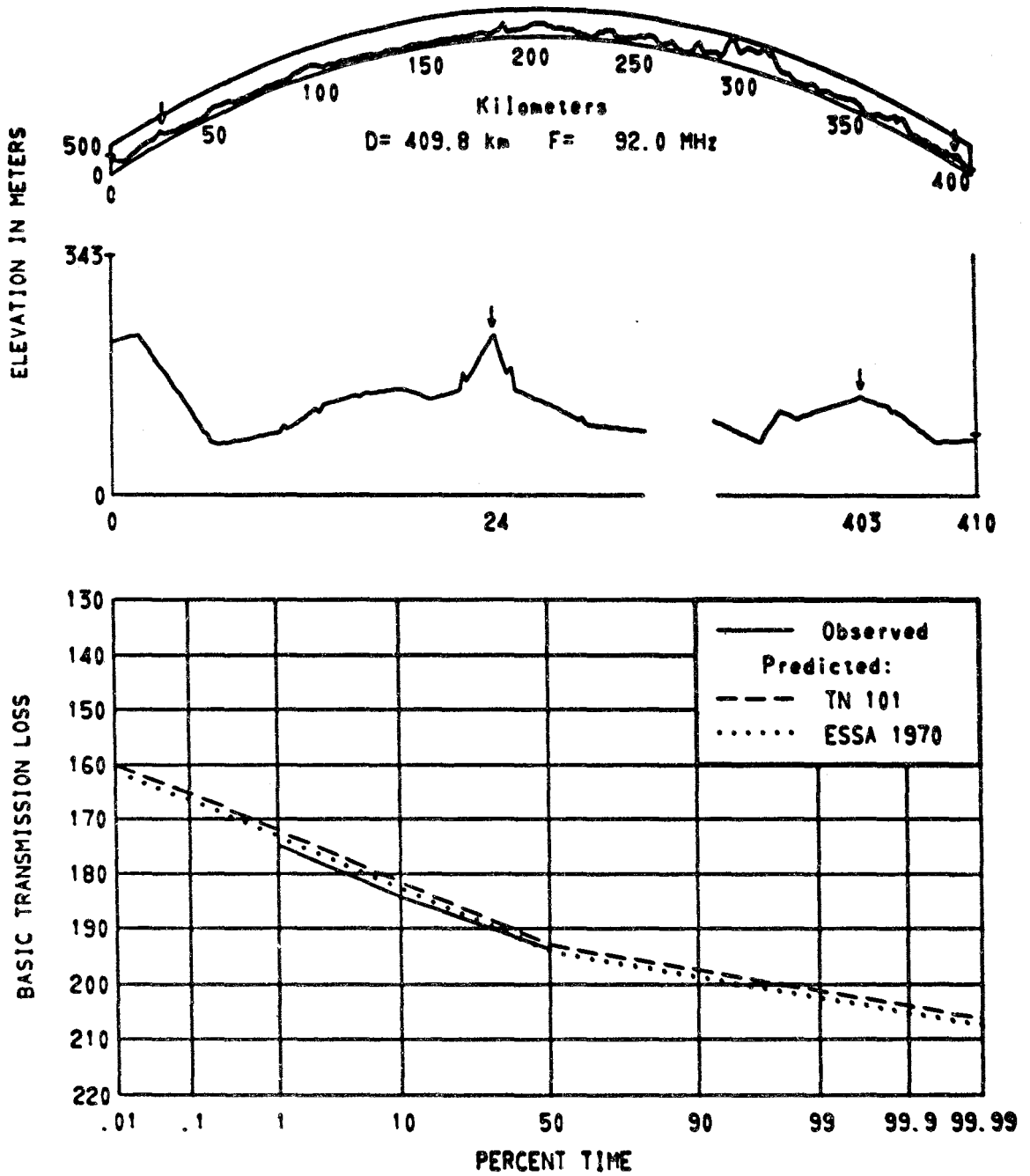


Figure 3.124 Path 2015

PATHS 2043 2048 2104 PONTOP PIKE ENG - KINGSWOOD ENG

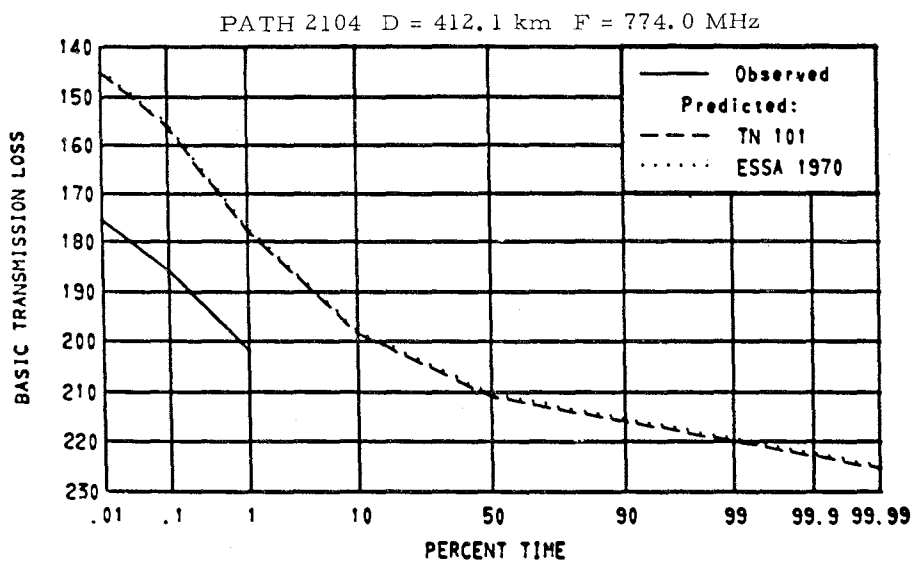
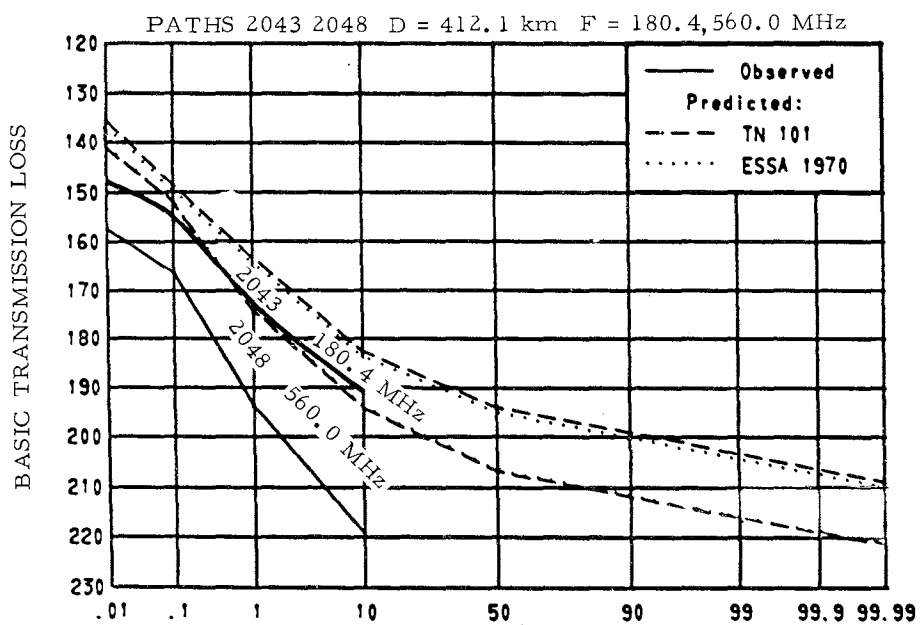
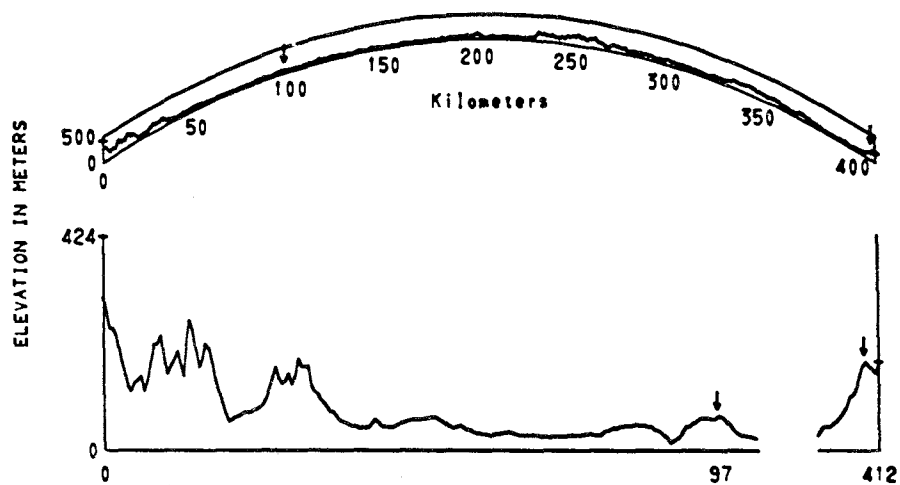


Figure 3.125 Paths 2043 2048 2104

PATH 2180 ALEXANDRA PALACE ENG - DOUGLAS ISLE OF MAN

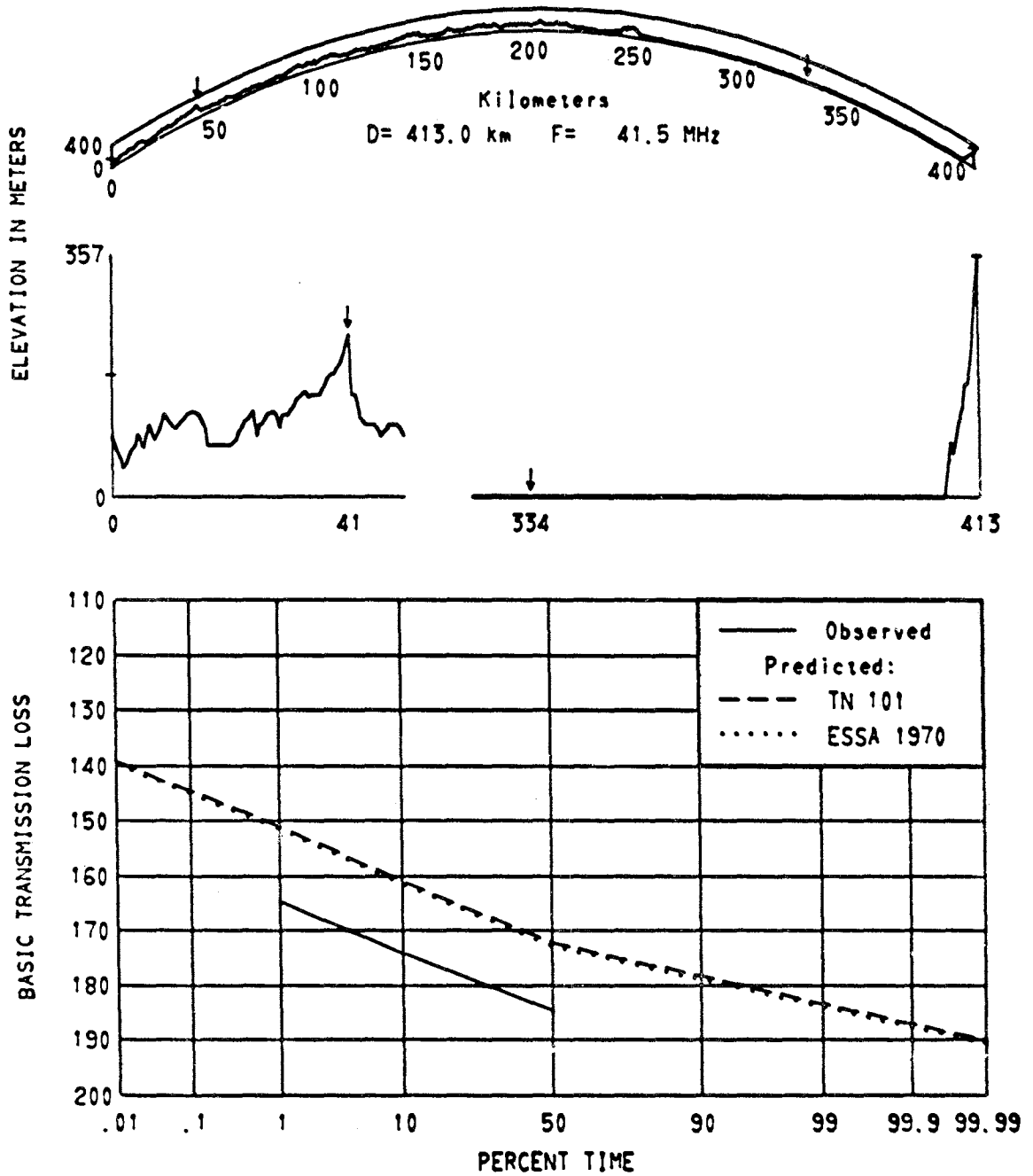


Figure 3.126 Path 2180

PATH 2017 WROTHAM ENG - HEDDON LAWS ENG

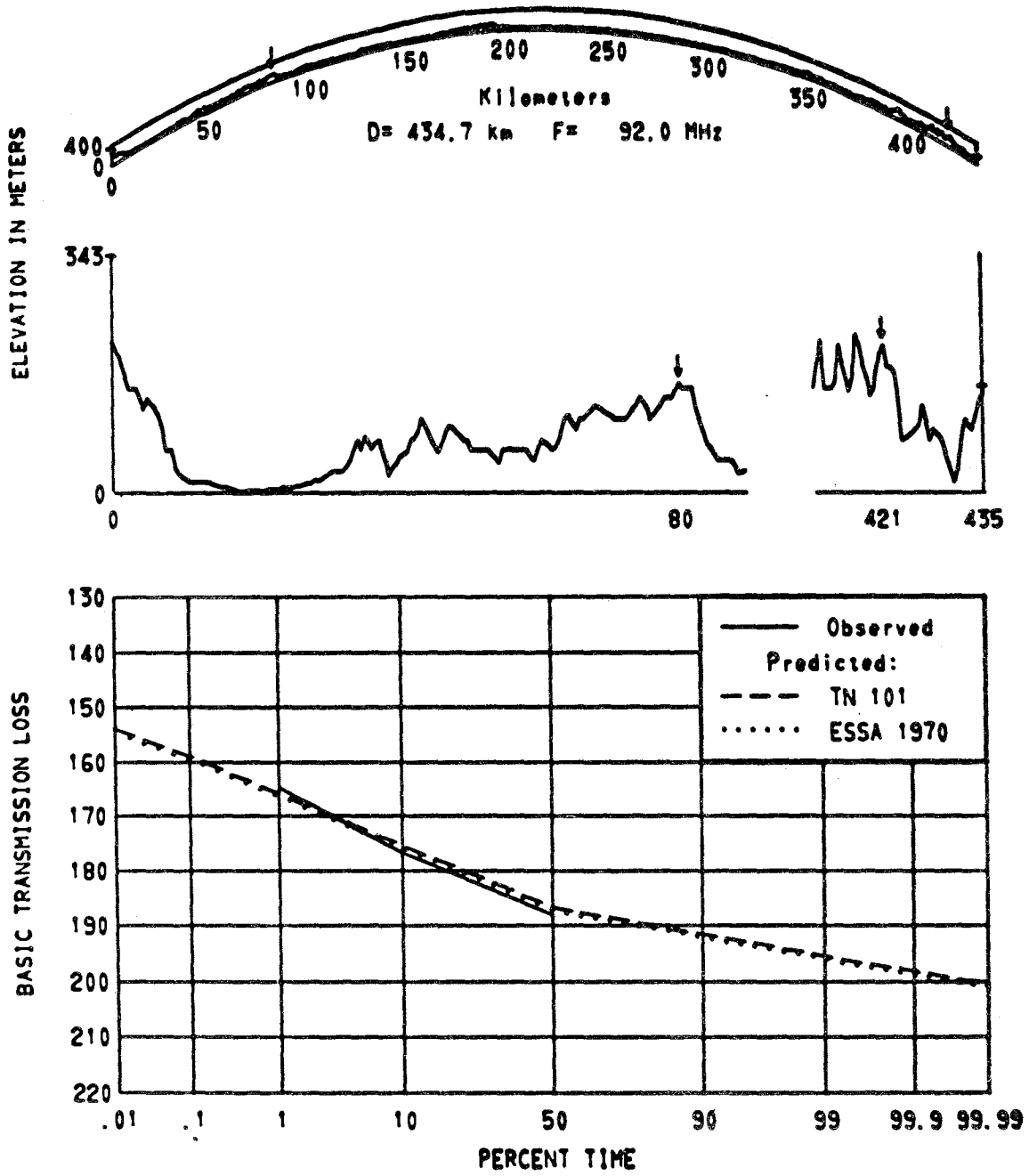


Figure 3.127 Path 2017

PATH 2083 HOWTH HEAD IRE - PORTSDOWN ENG

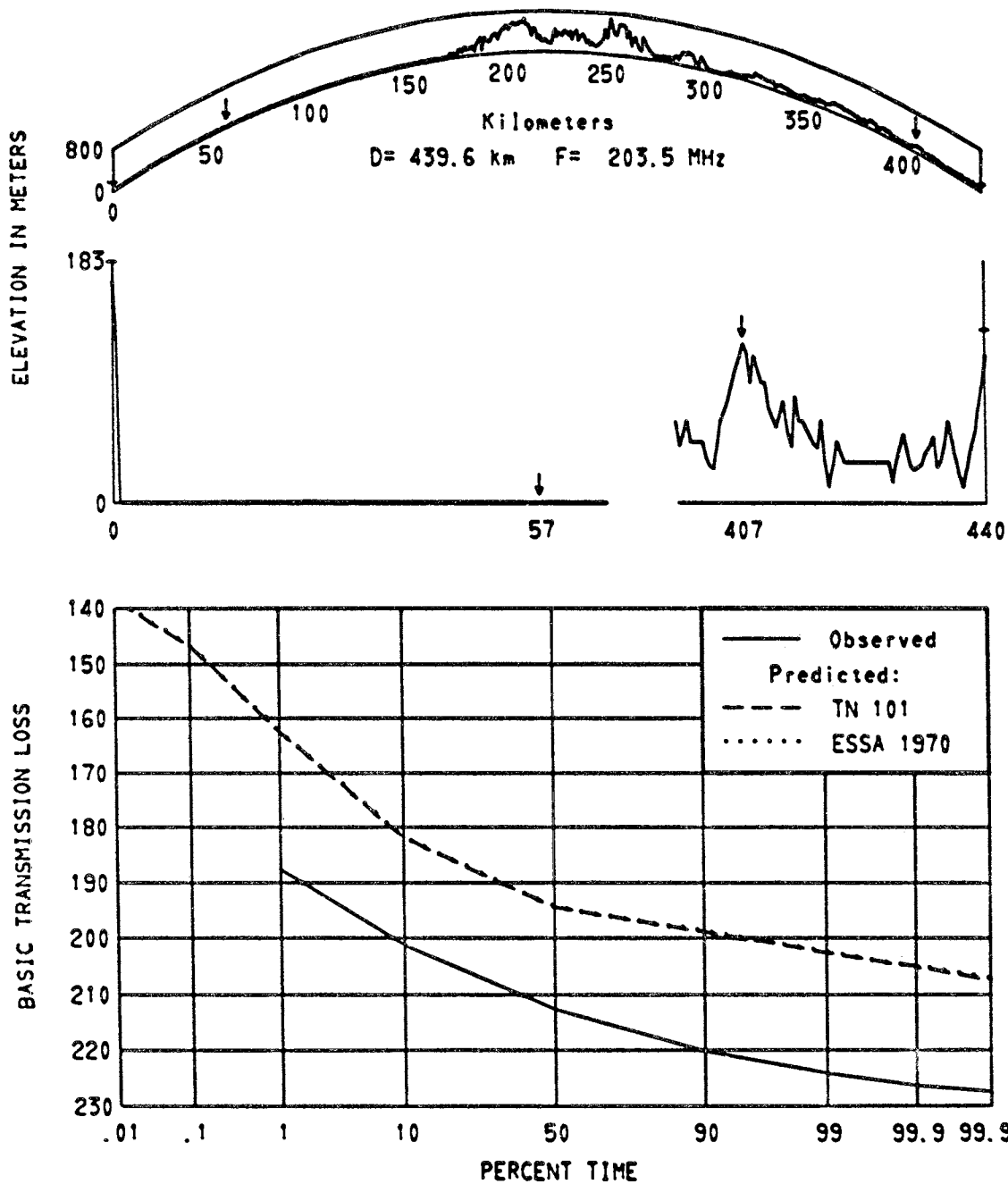
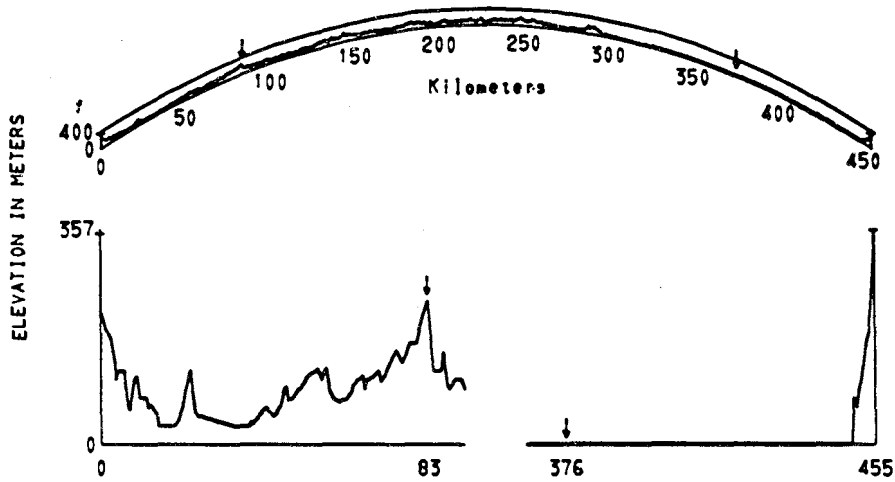
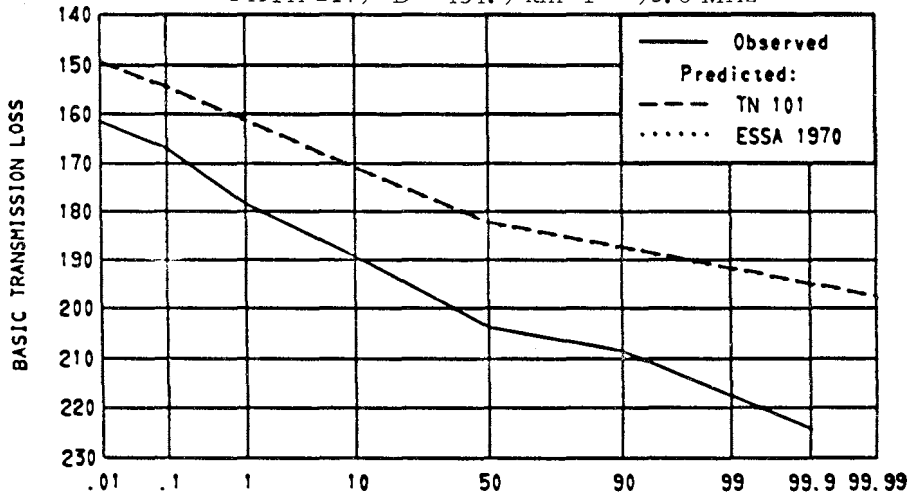


Figure 3.128 Path 2083

PATHS 2179 2181 WROTHAM ENG - DOUGLAS ISLE OF MAN



PATH 2179 D = 454.9 km F = 93.8 MHz



PATH 2181 D = 449.9 km F = 93.8 MHz

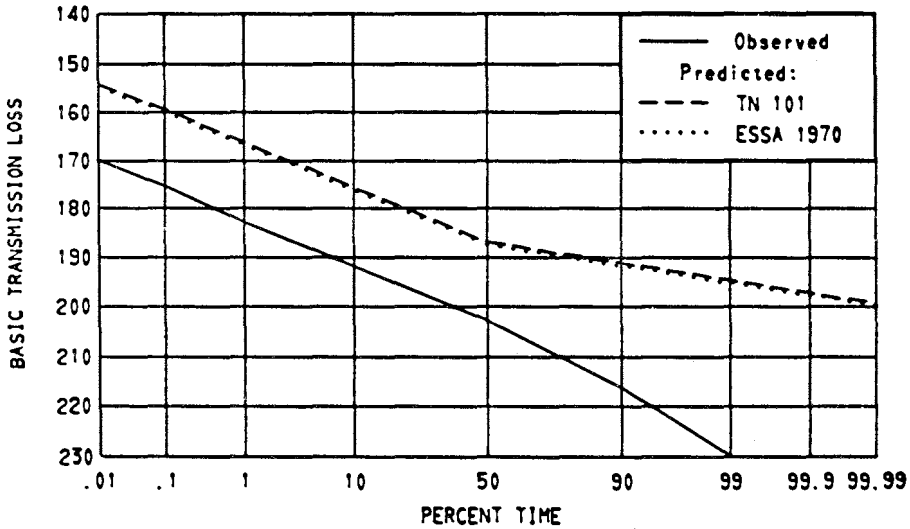


Figure 3.129 Paths 2179 2181

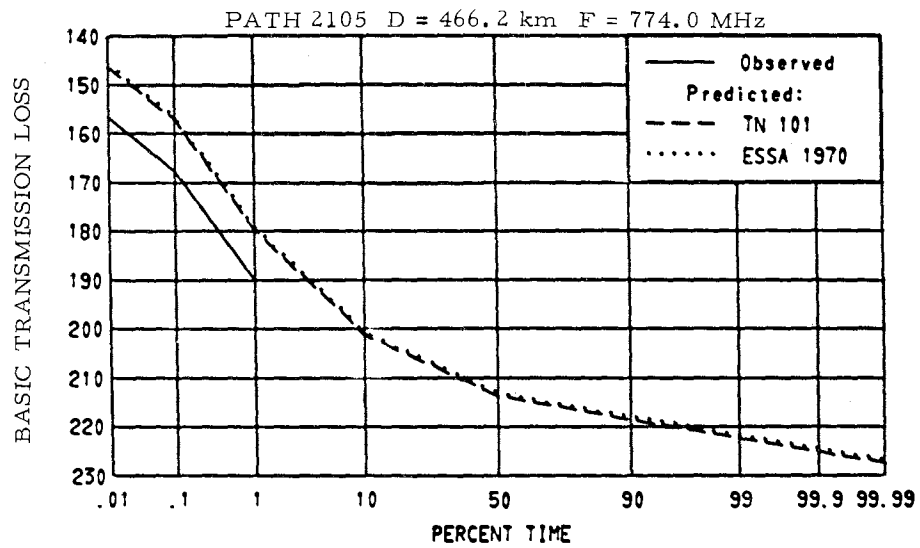
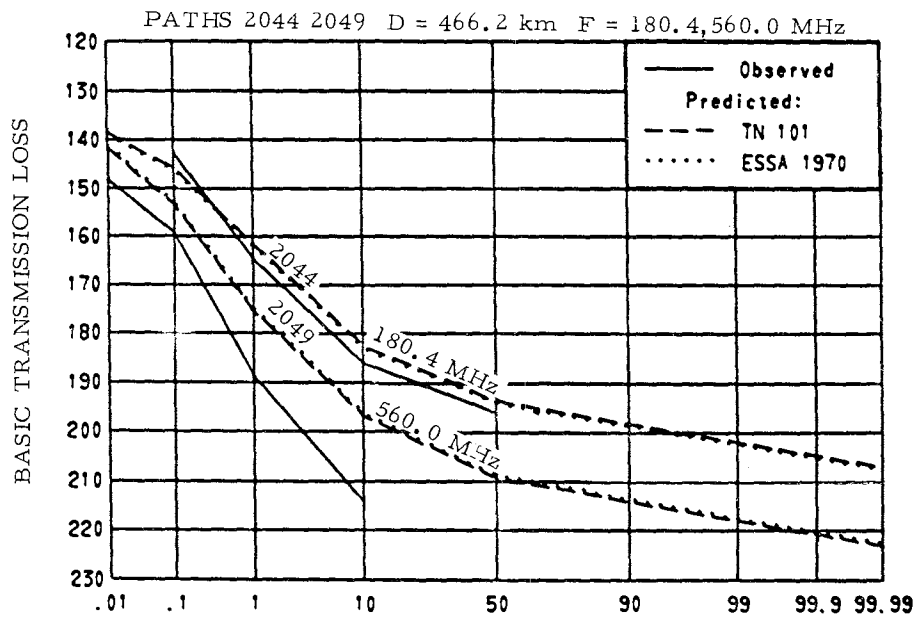
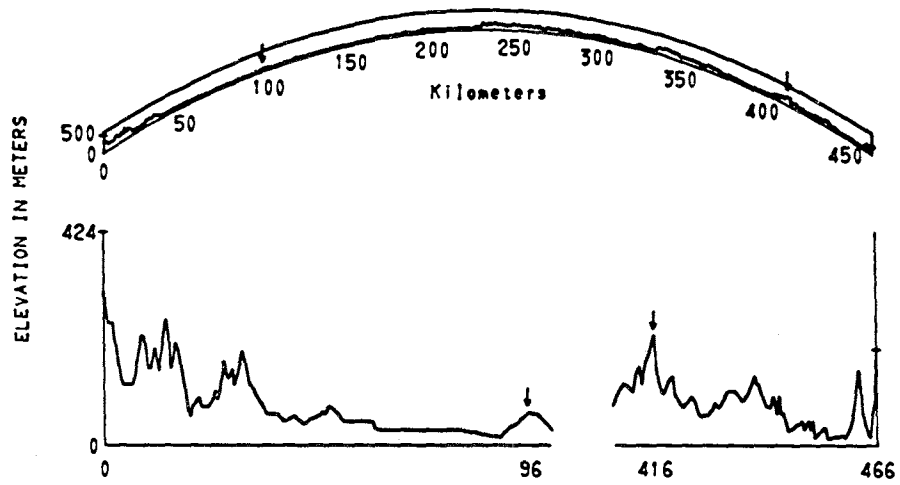


Figure 3.130 Paths 2044 2049 2105

PATH 2150 DIVIS IRE - LESWIDDEN ENG

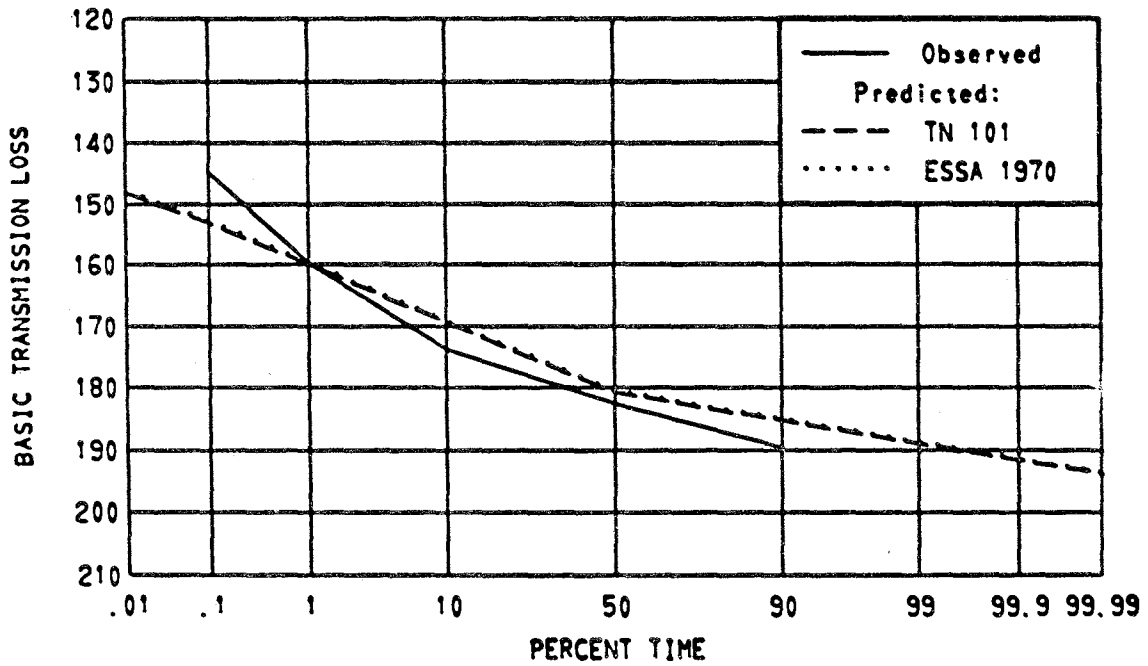
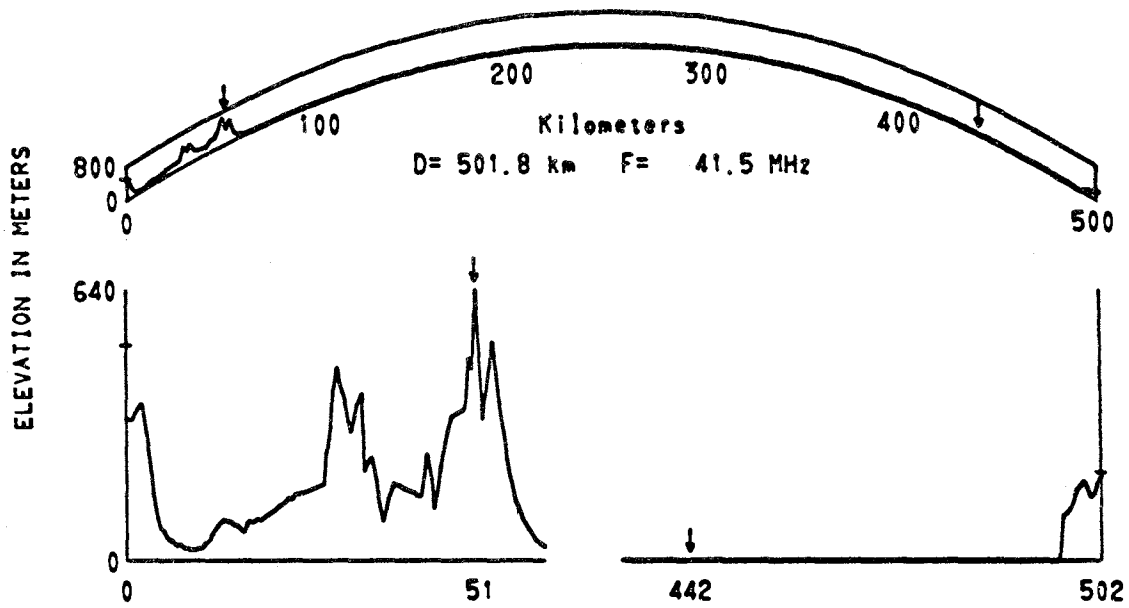


Figure 3.131 Path 2150

PATH 2160 PARIS FRANCE - TOLSFORD HILL ENG

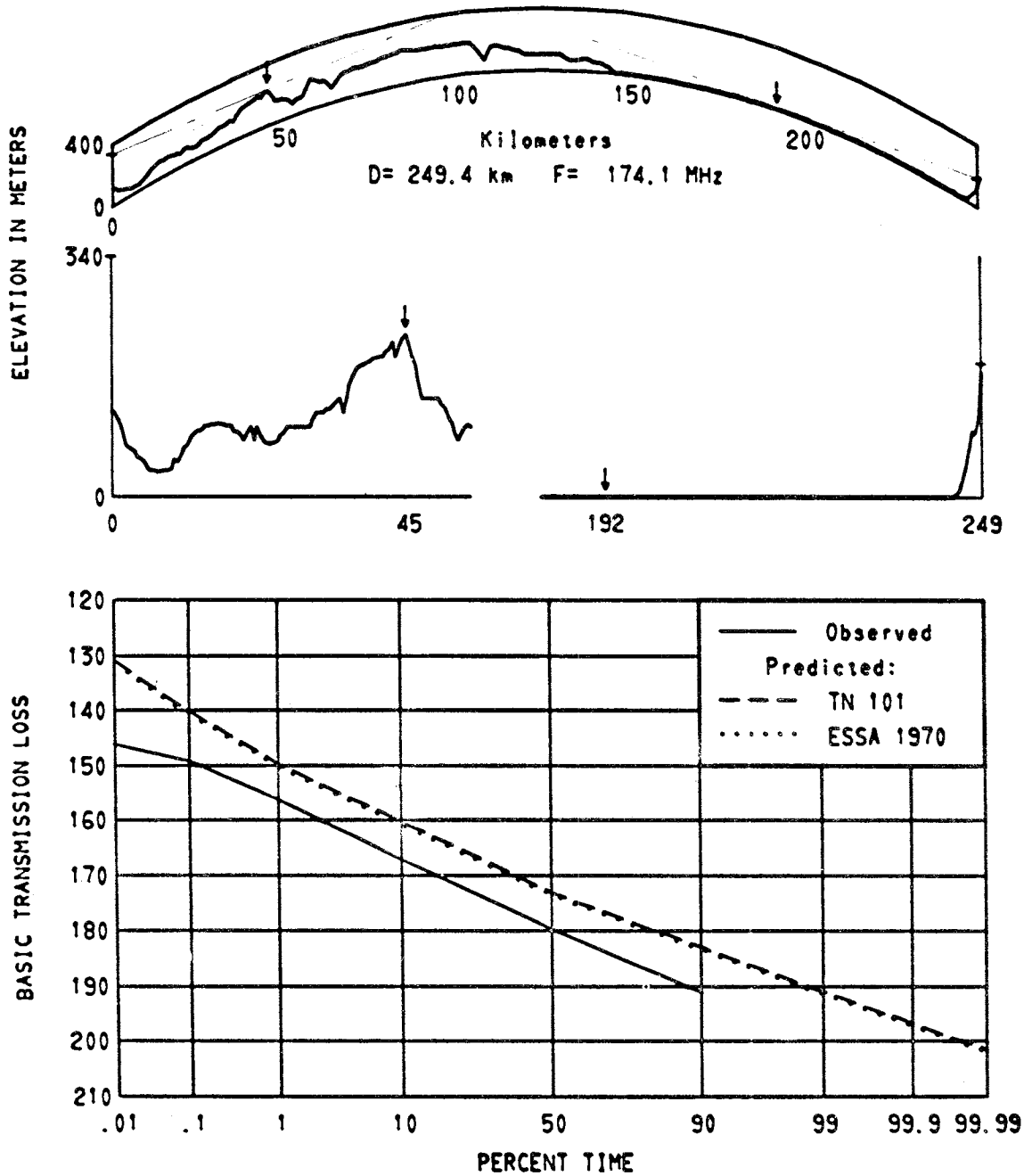


Figure 3.132 Path 2160

PATH 2133 LILLE FRANCE - ALDEBURGH ENG

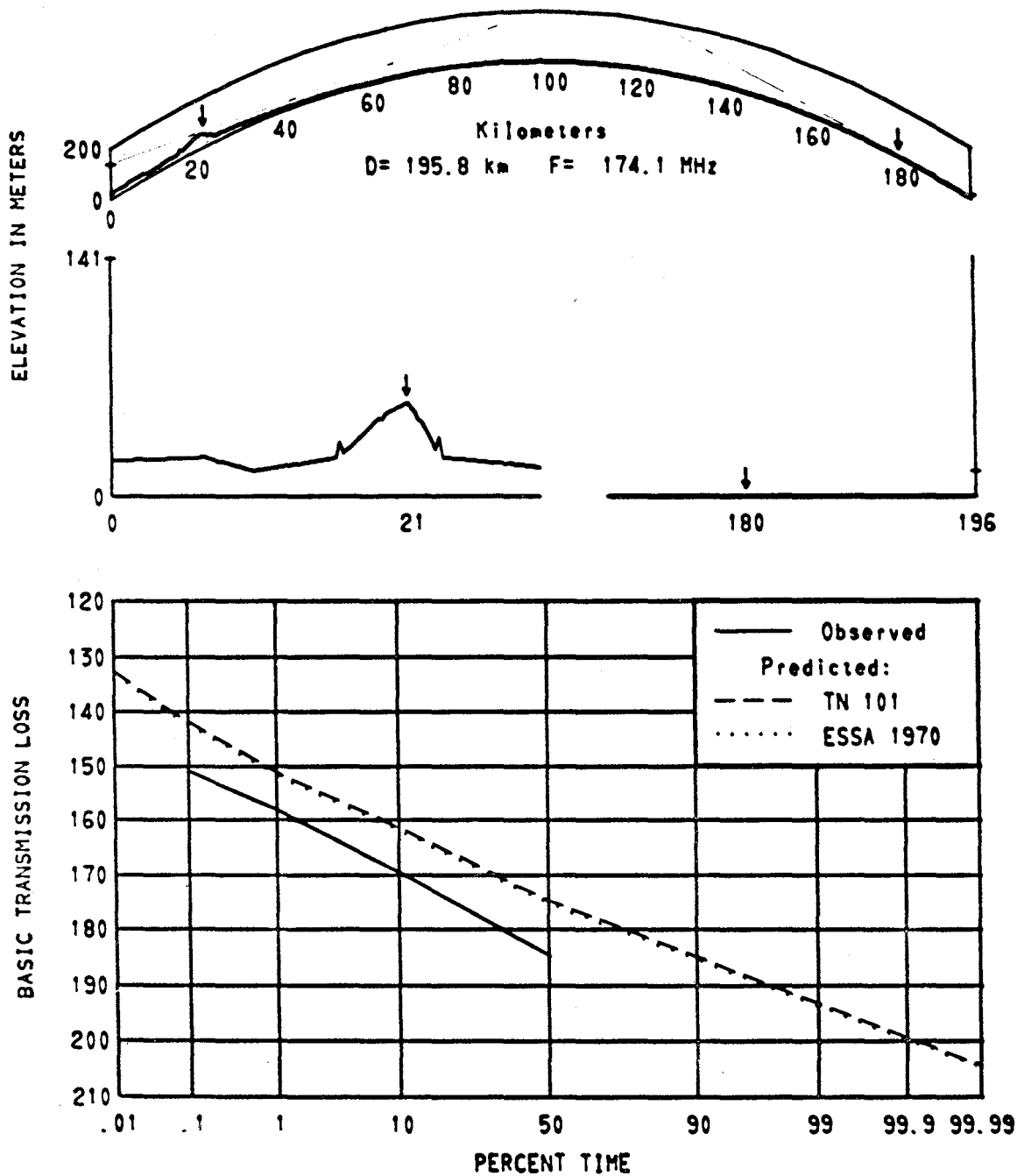


Figure 3.133 Path 2133

PATH 2178 LILLE FRANCE - BANBURY ENG

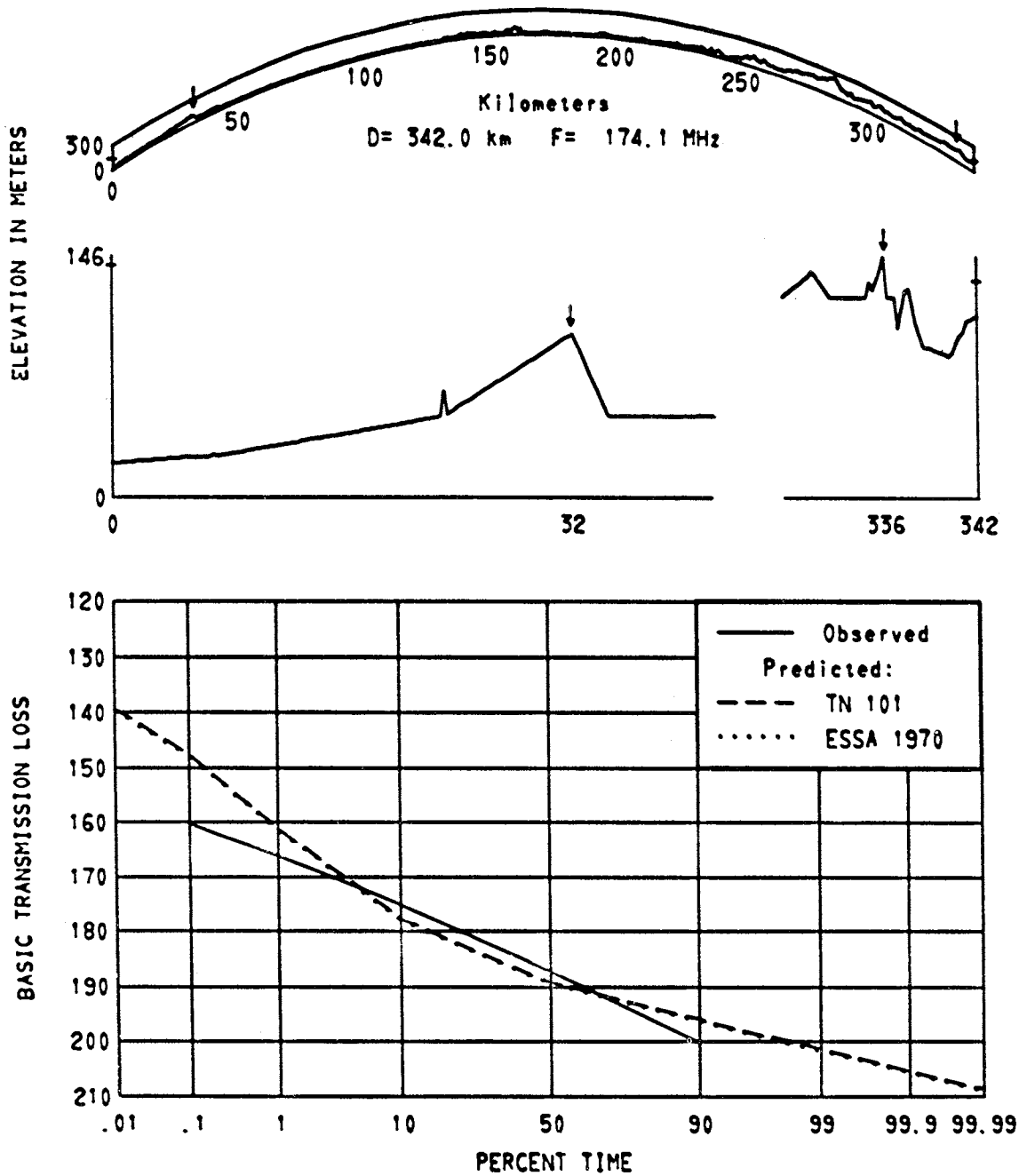


Figure 3.134 Path 2178

PATH 2132 LILLE FRANCE - STOKE FLEMING ENG

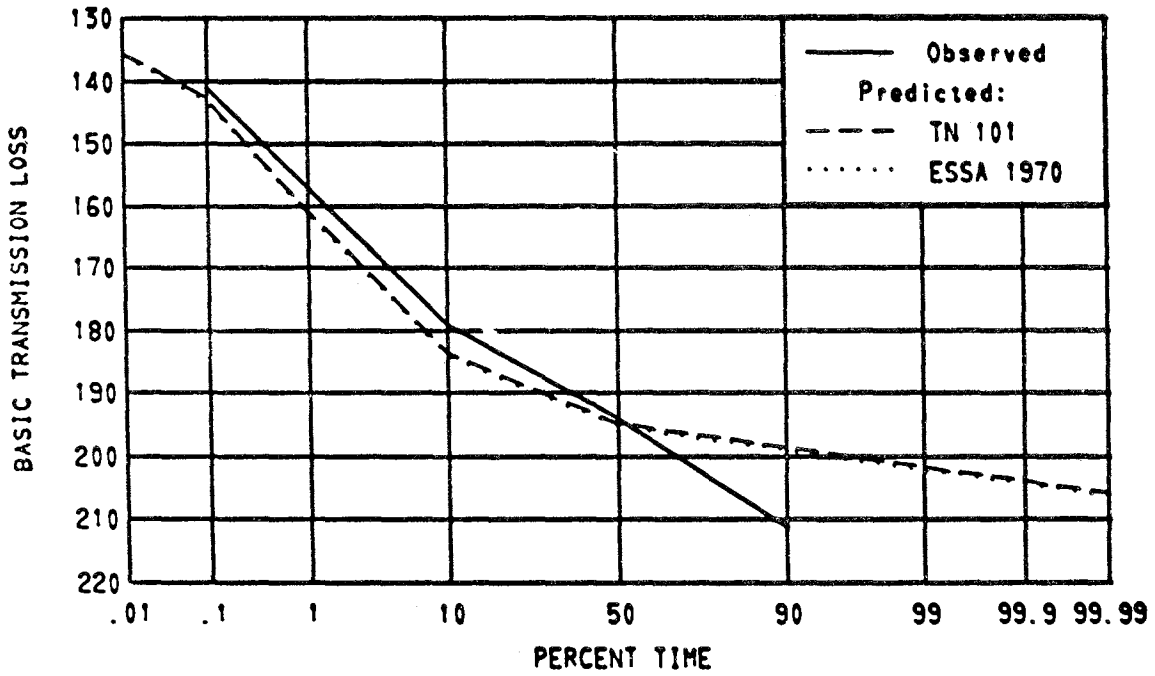
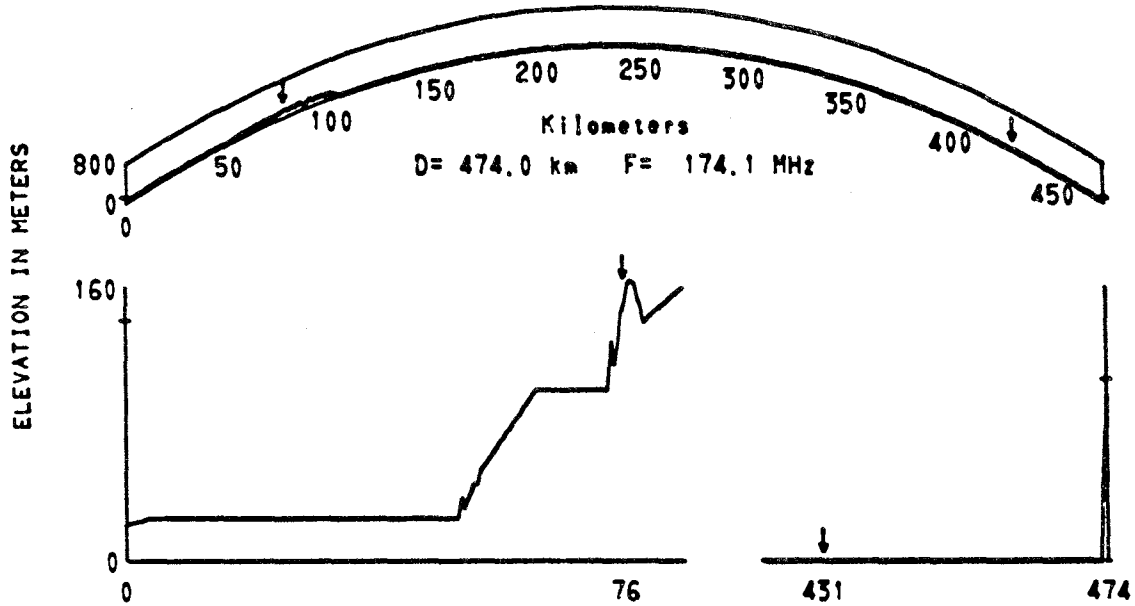
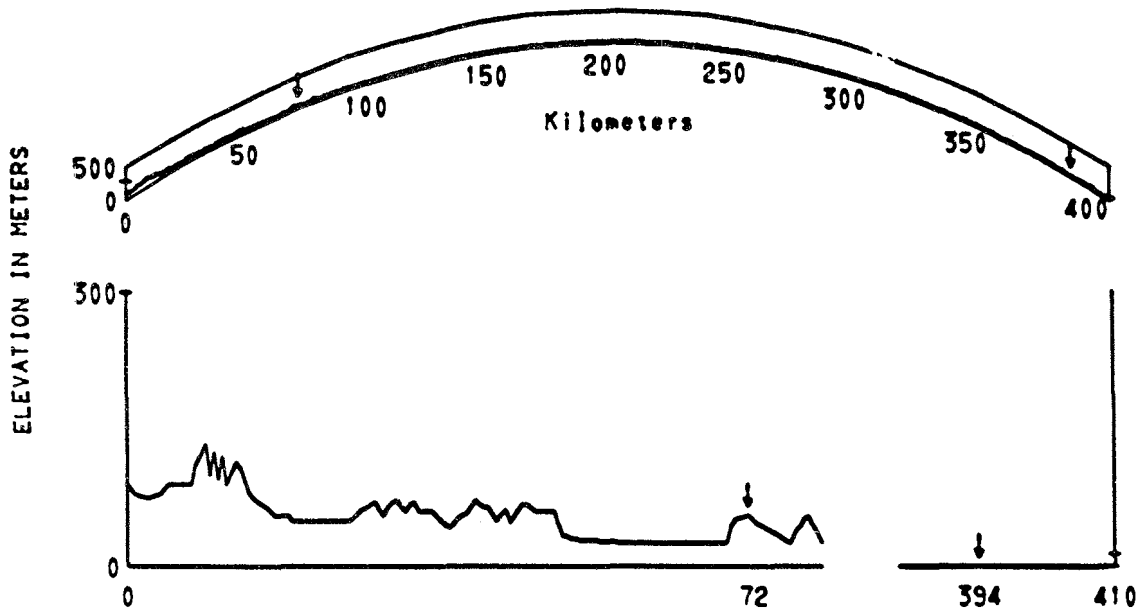


Figure 3.135 Path 2132

PATHS 2199 2216 DORTMUND W GER - ALDEBURGH ENG



PATHS 2199 2216 D = 409.7 km F = 535.0, 503.0 MHz

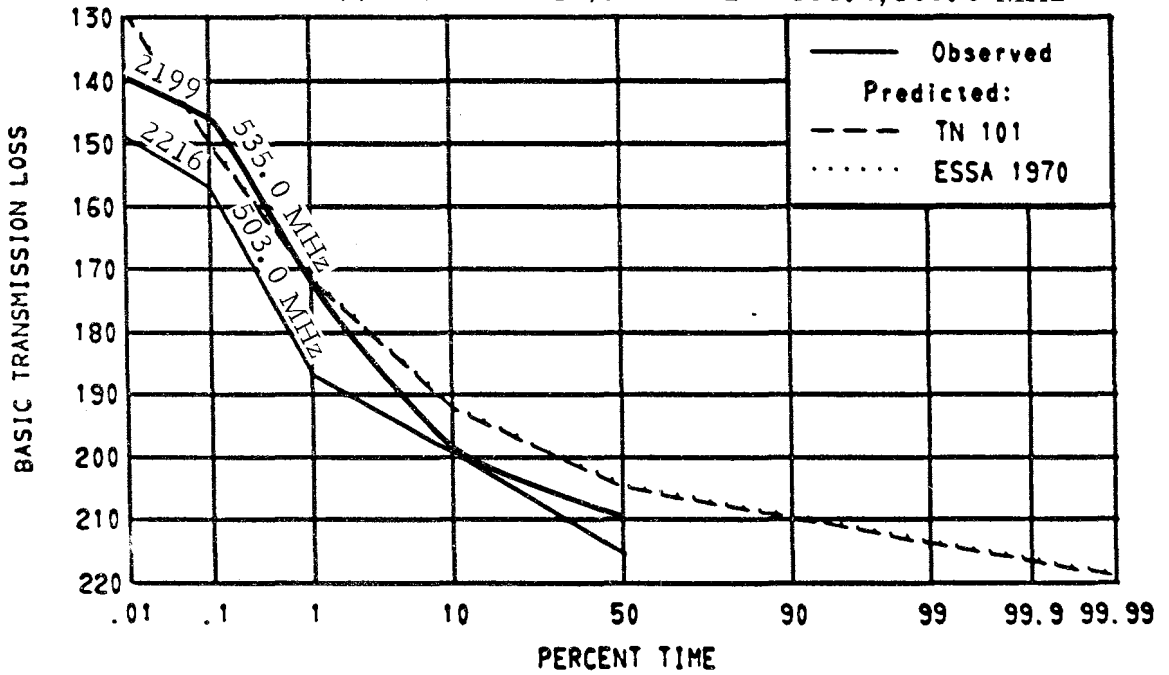


Figure 3.136 Paths 2199 2216

PATH 2189 DORTMUND W GER - WICKHAMBROOK ENG

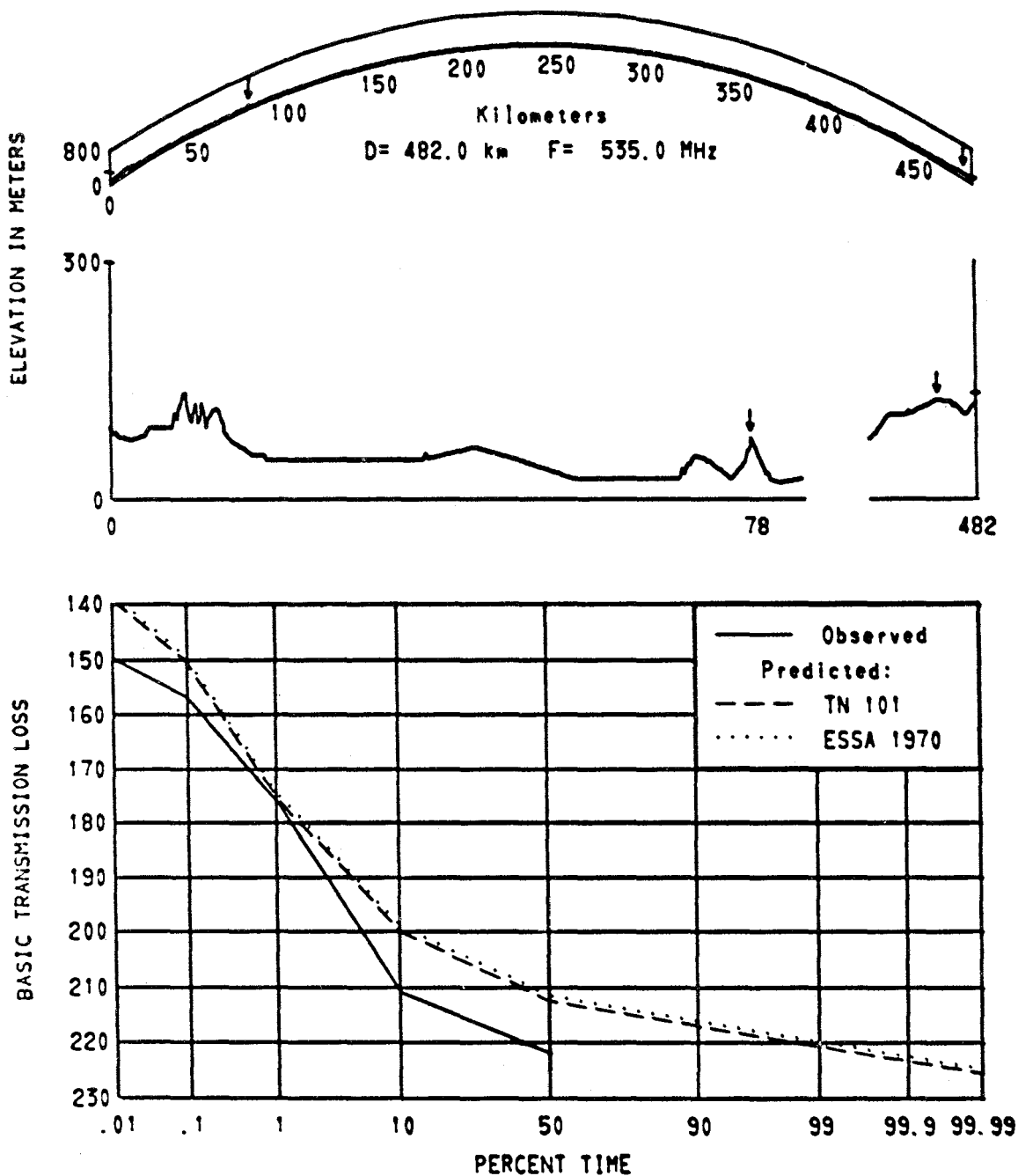


Figure 3.137 Path 2189

PATH 2099 DUSSELDORF W GER - ALDEBURGH ENG

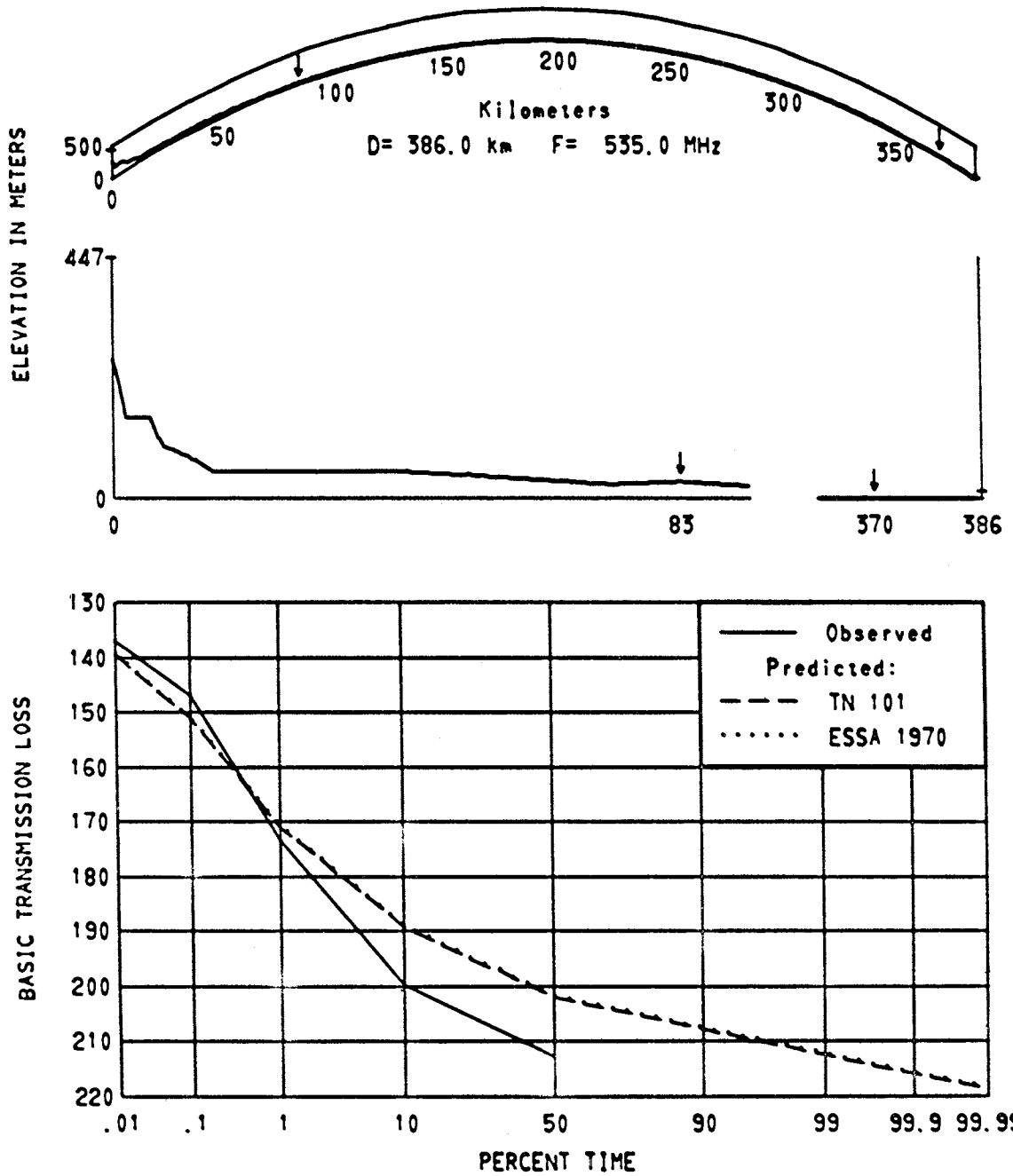


Figure 3.138 Path 2099

PATH 2195 DUSSELDORF W GER - WICKHAMBROOK ENG

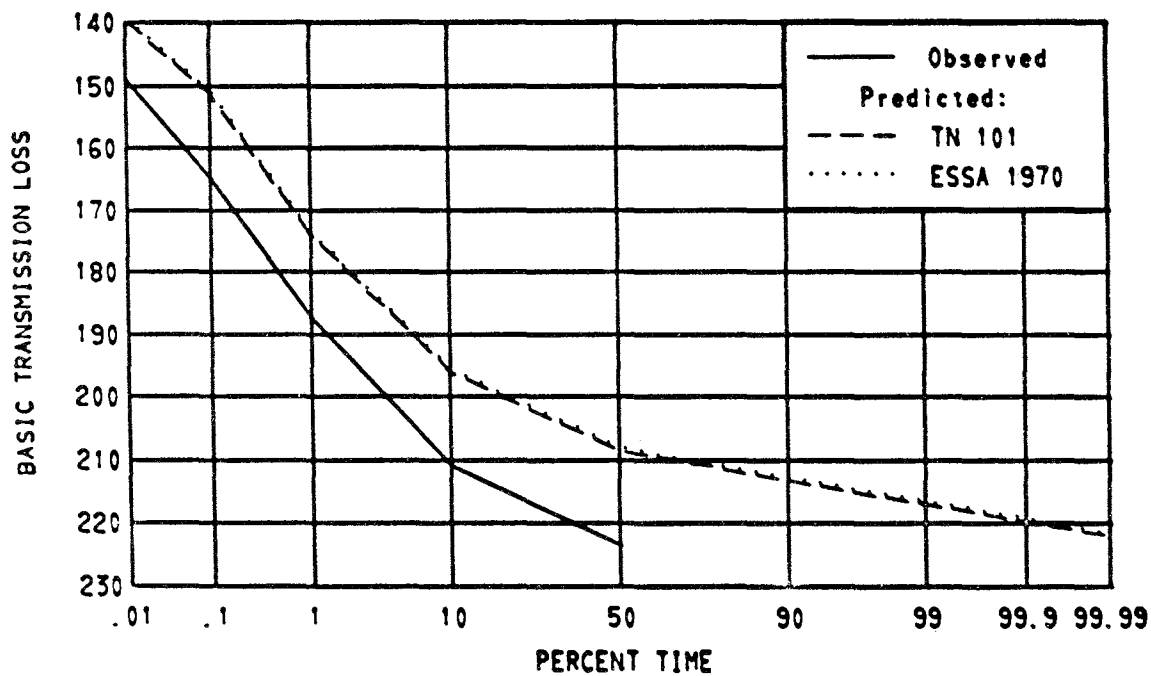
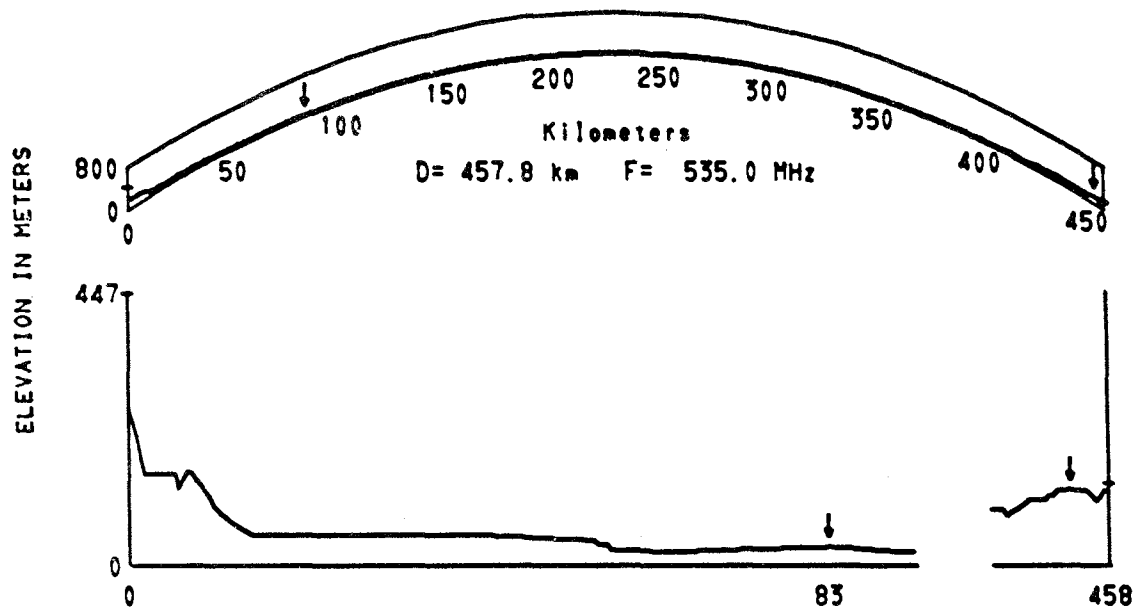


Figure 3.139 Path 2195

PATH 2196 DUSSELDORF W GER - BANBURY ENG

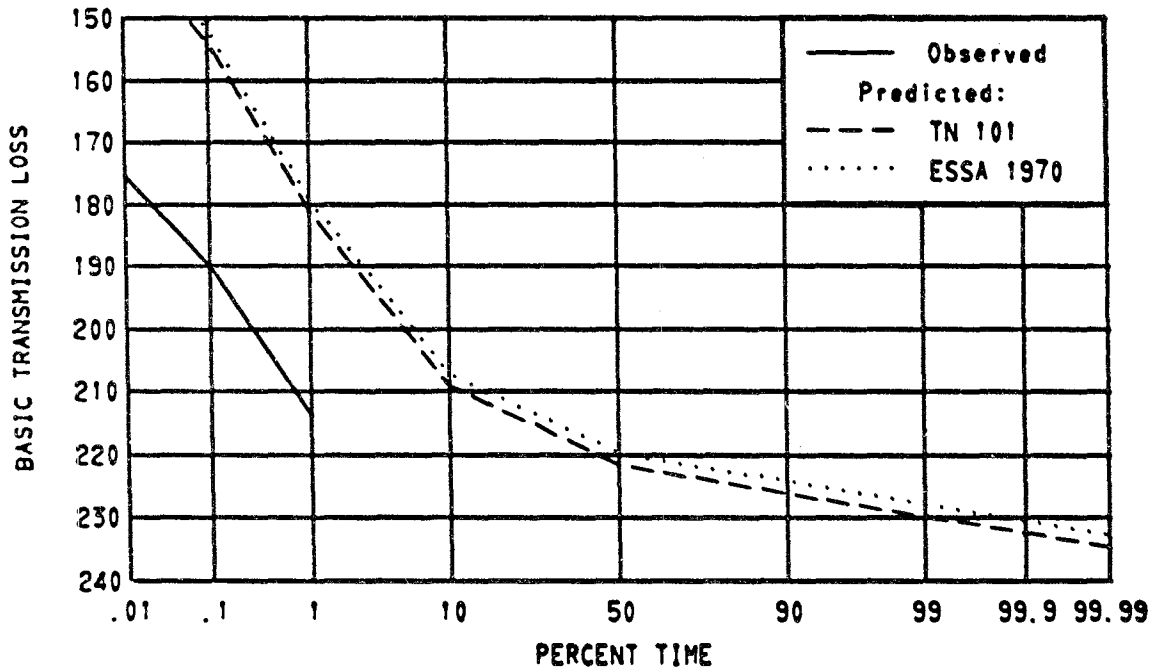
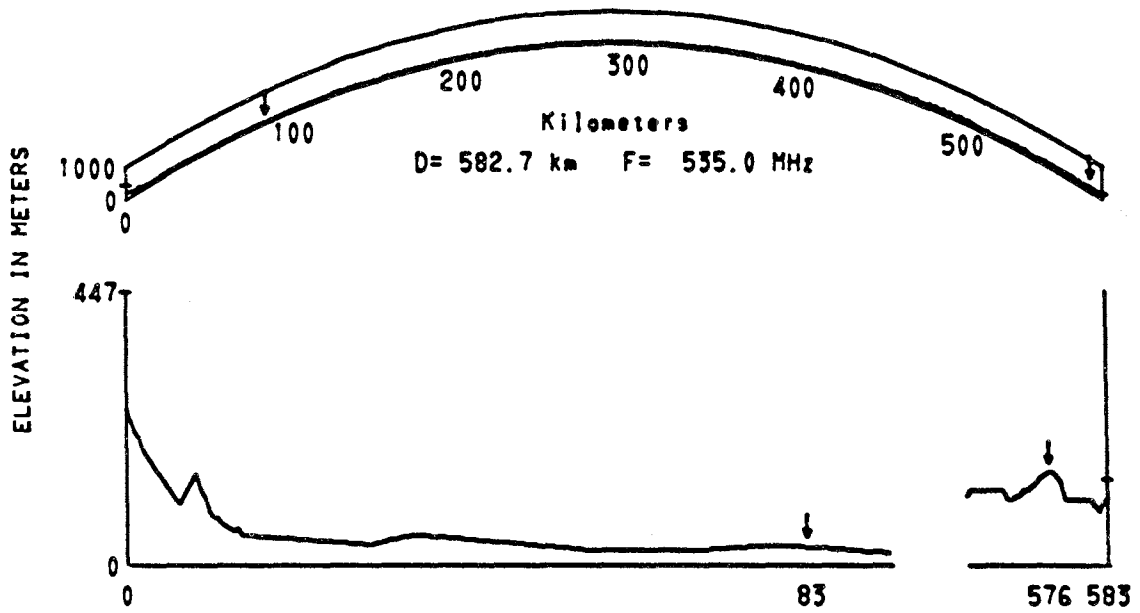


Figure 3.140 Path 2196

PATH 2192 HUISDUINEN NETH - WEST BECKHAM ENG

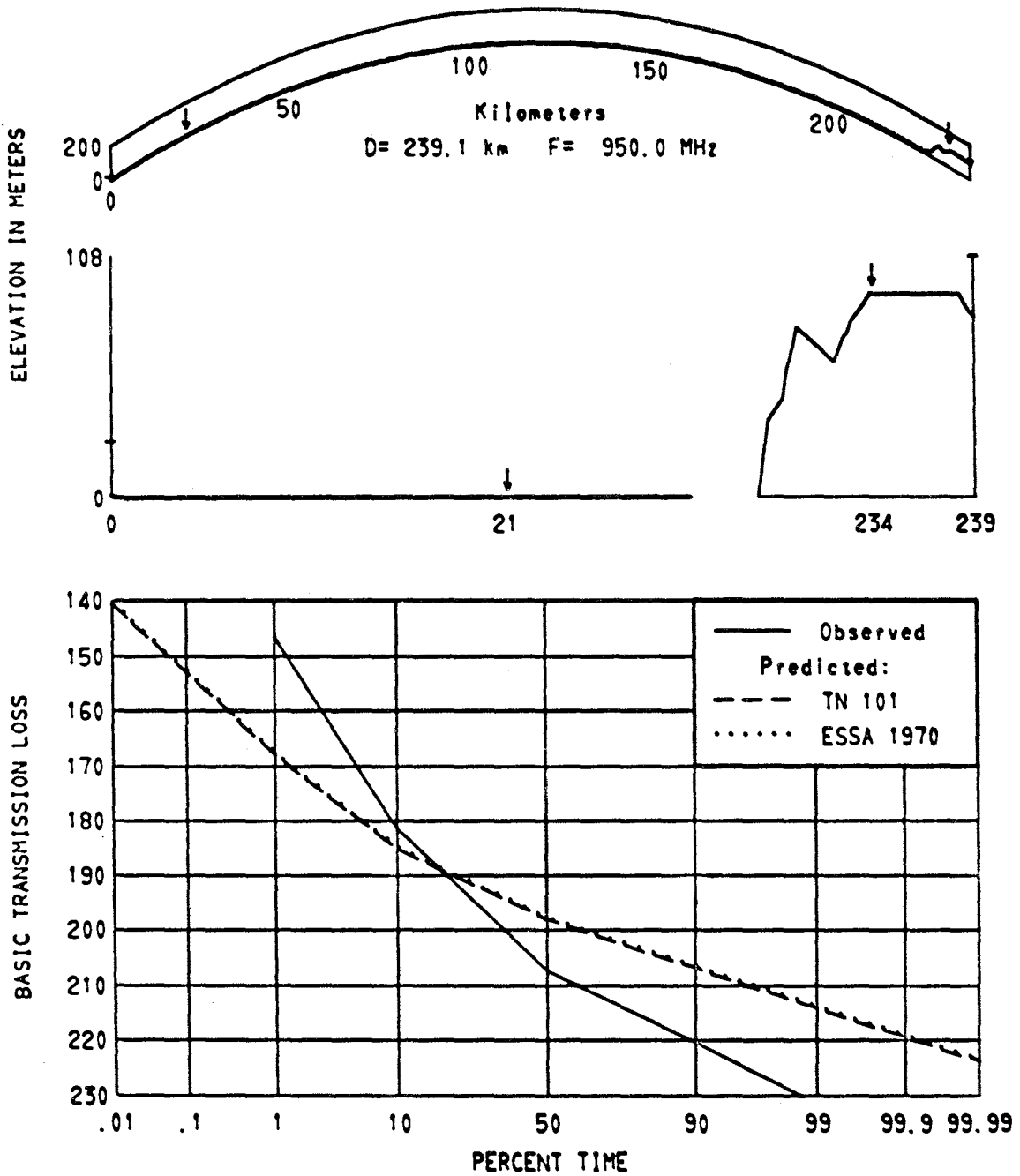


Figure 3.141 Path 2192

PATH 2186 LOPIK NETH - ALDEBURGH ENG

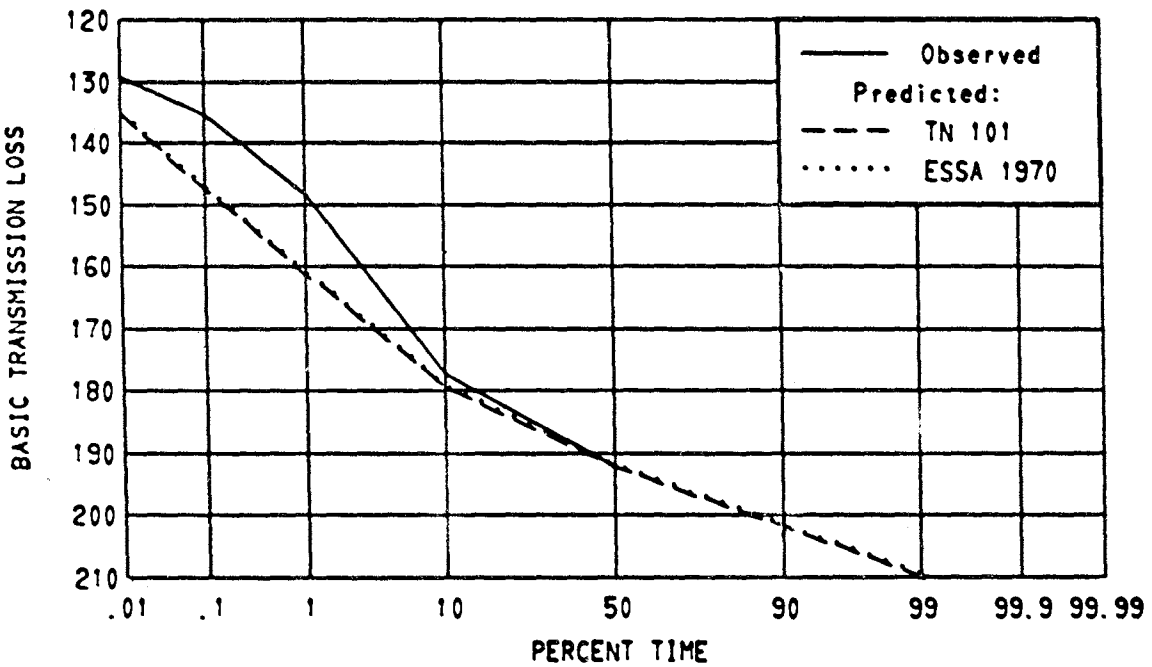
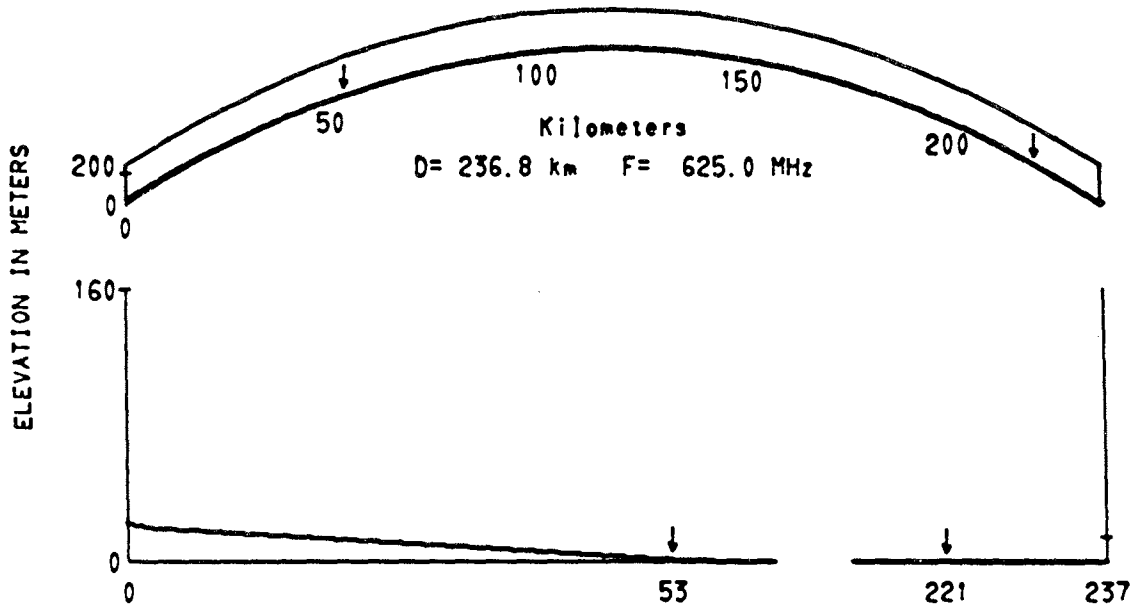


Figure 3.142 Path 2186

PATH 2175 LOPIK NETH - WICKHAMBROOK ENG

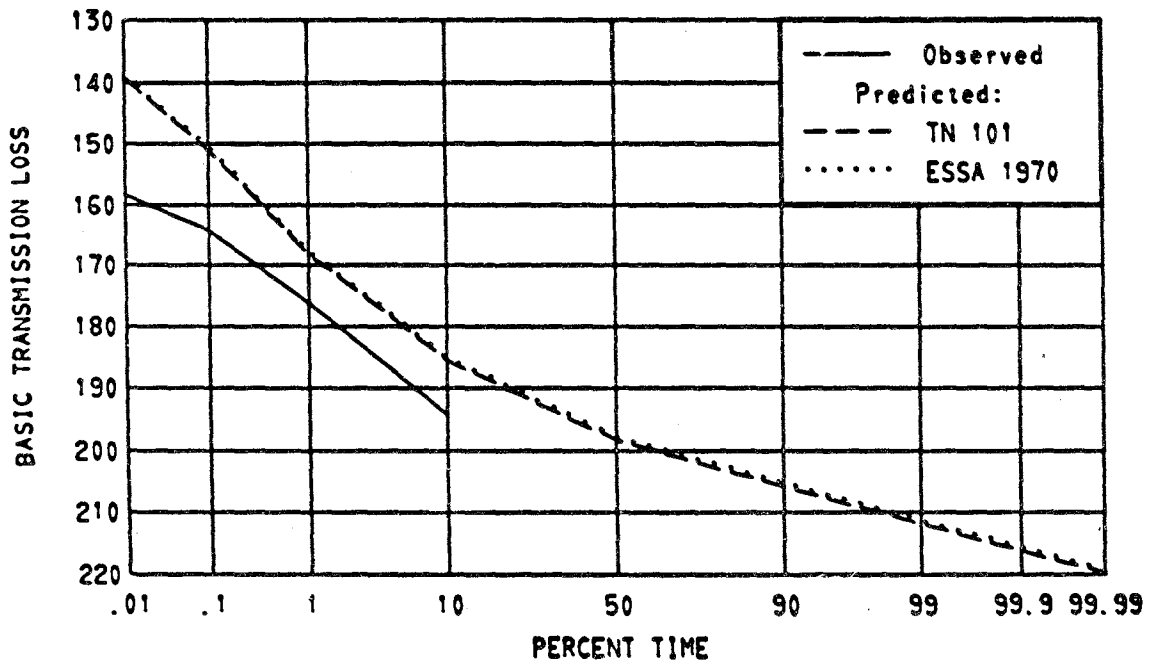
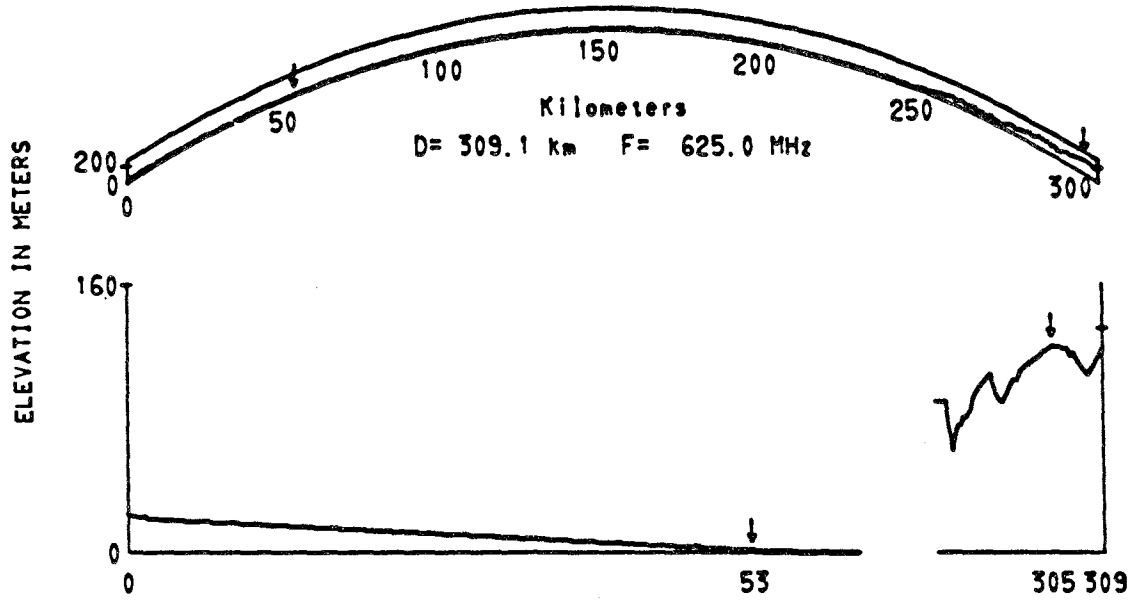


Figure 3.143 Path 2175

SCHEVENINGEN NETH - HAPPISBURGH ENG
 PATHS 1987 2034 2050 2085 2109

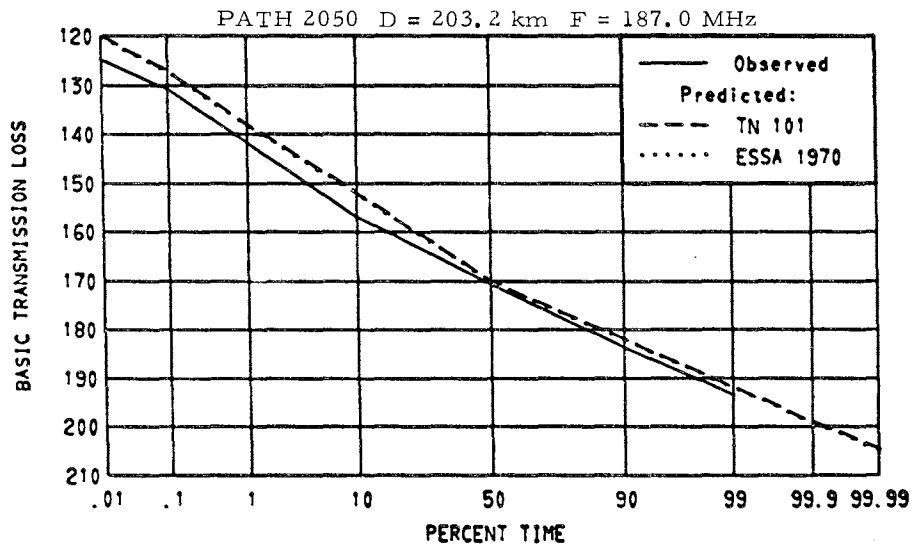
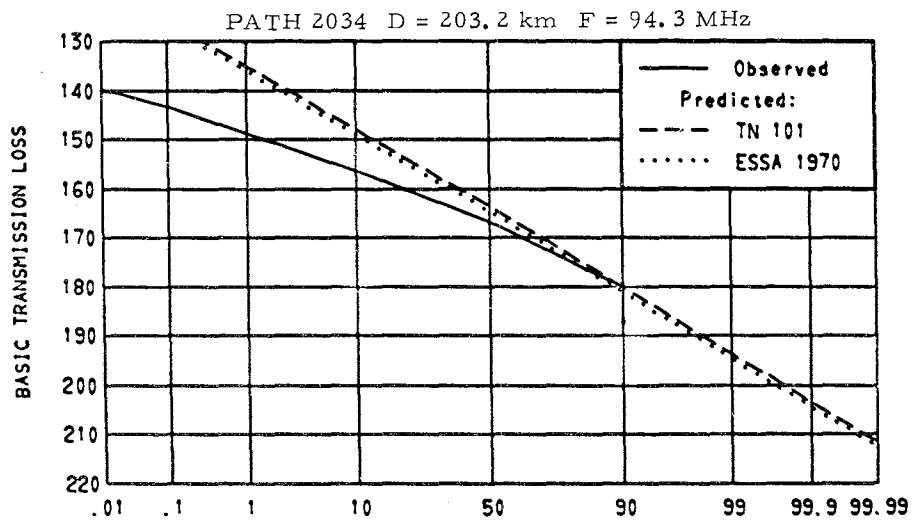
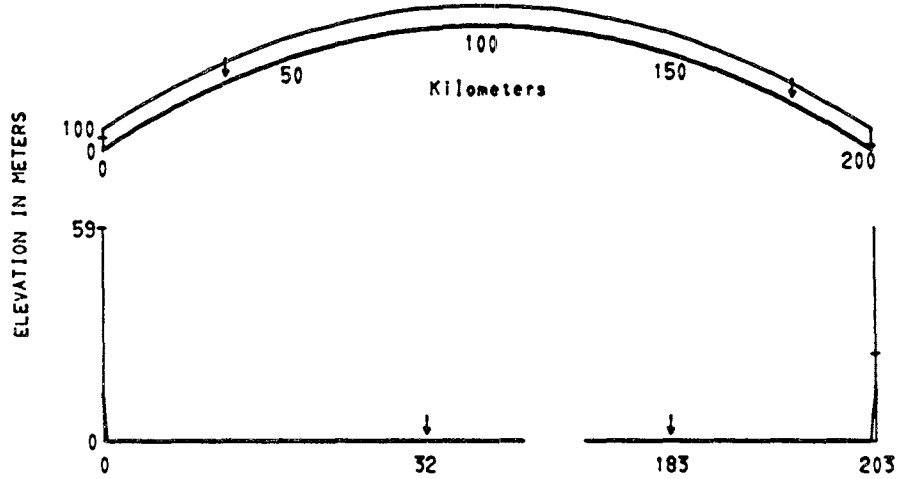
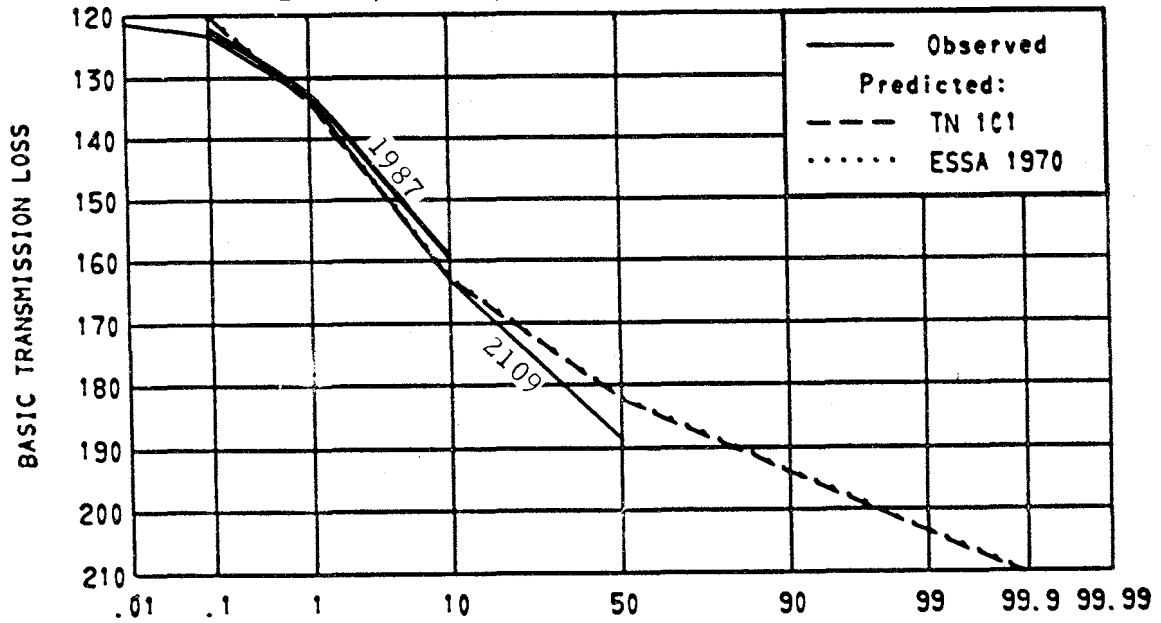


Figure 3.144 Paths 2034 2050

SCHEVENINGEN NETH - HAPPISBURGH ENG

PATHS 1987 2109 D = 203.2 km F = 560.0 MHz



PATH 2085 D = 203.2 km F = 774.0 MHz

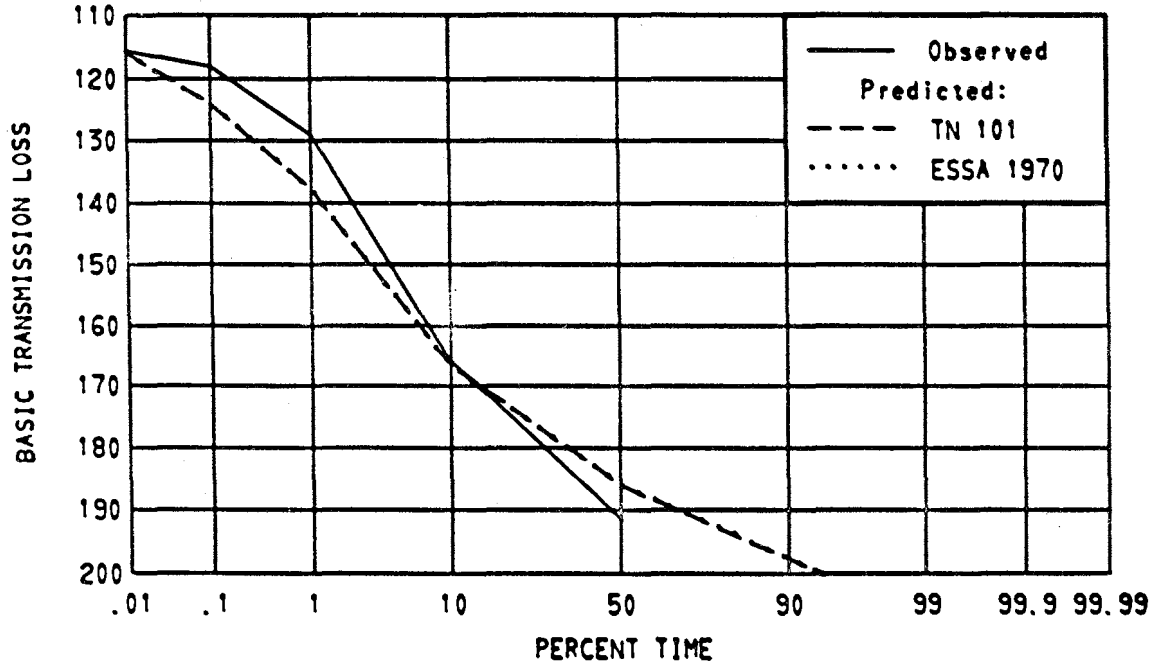


Figure 3.145 Paths 1987 2085 2109

PATH 1988 SCHEVENINGEN NETH - TACOLNESTON ENG

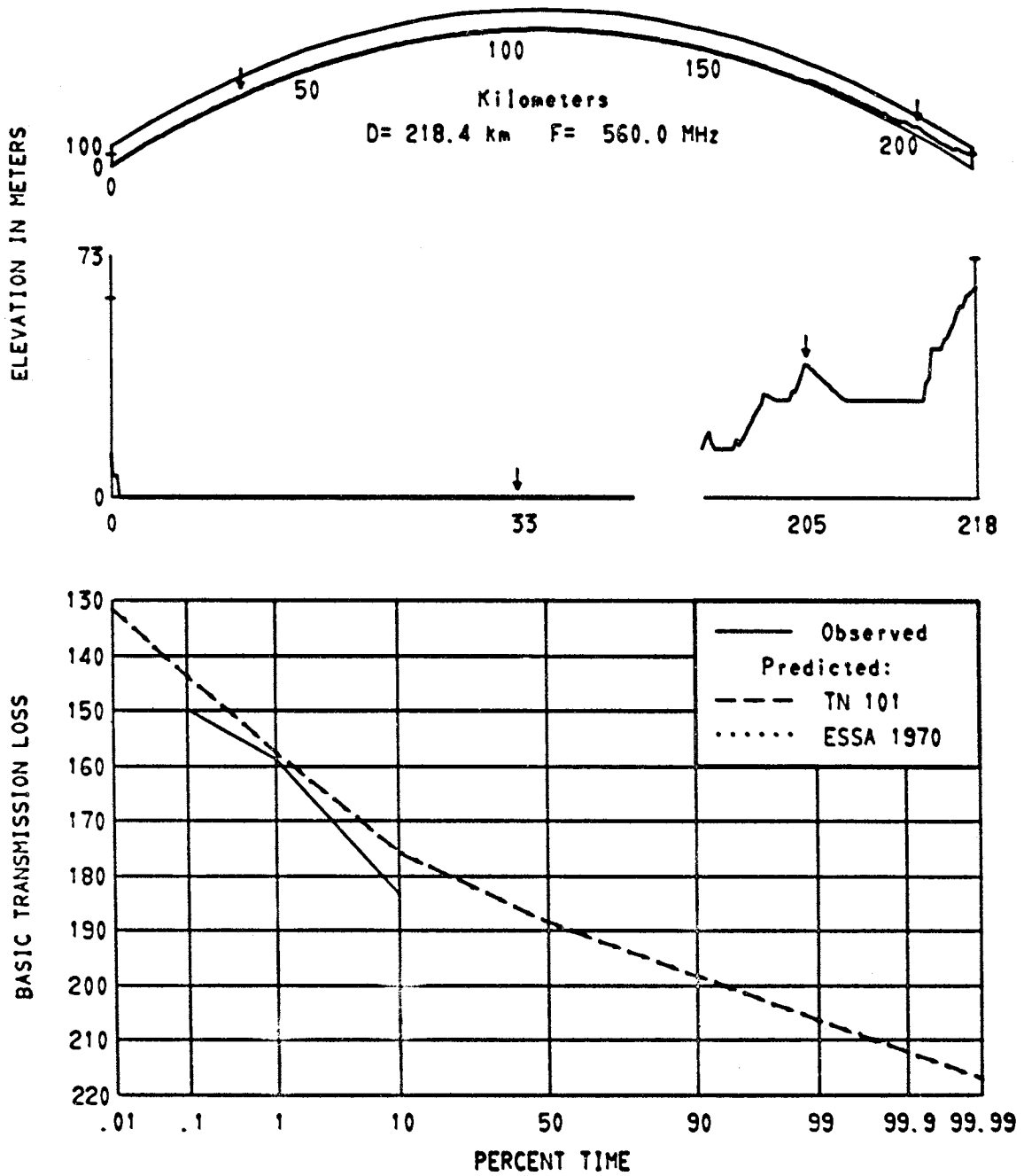


Figure 3.146 Path 1988

PATH 1989 SCHEVENINGEN NETH - FELTWELL ENG

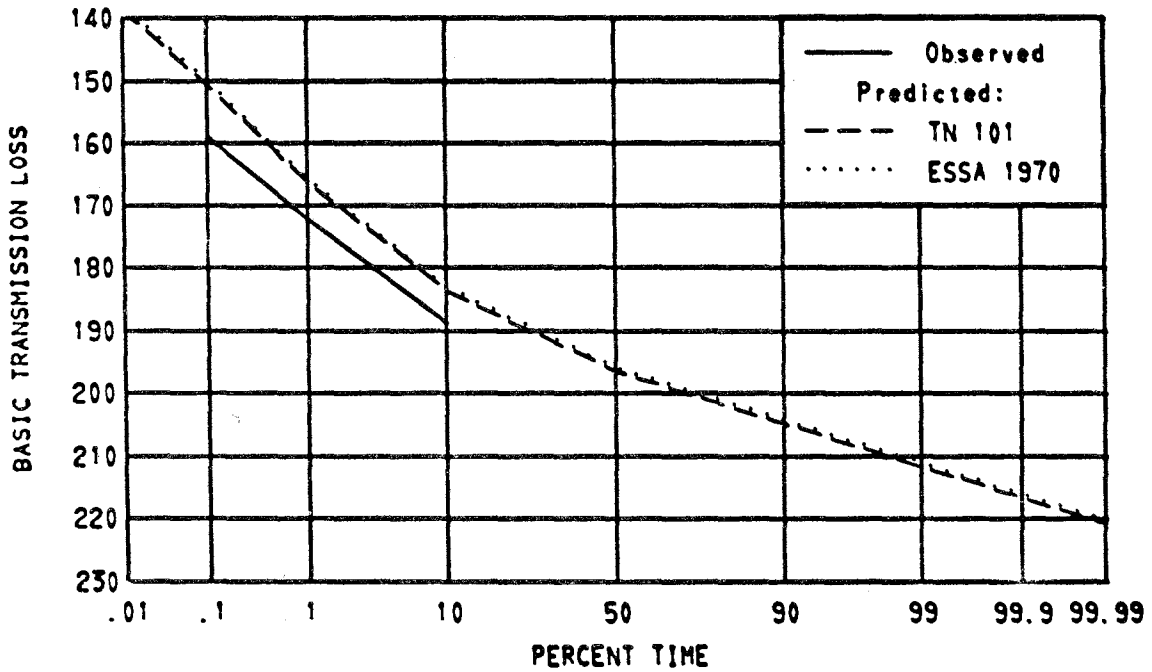
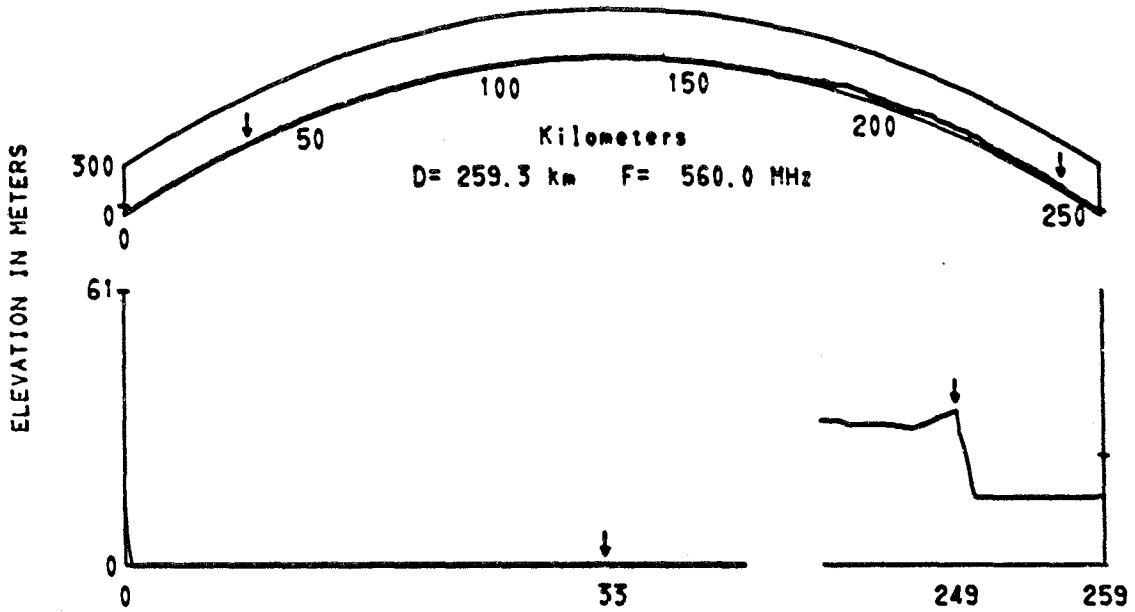


Figure 3.147 Path 1989

PATH 1990 SCHEVENINGEN NETH - MORBORNE HILL ENG

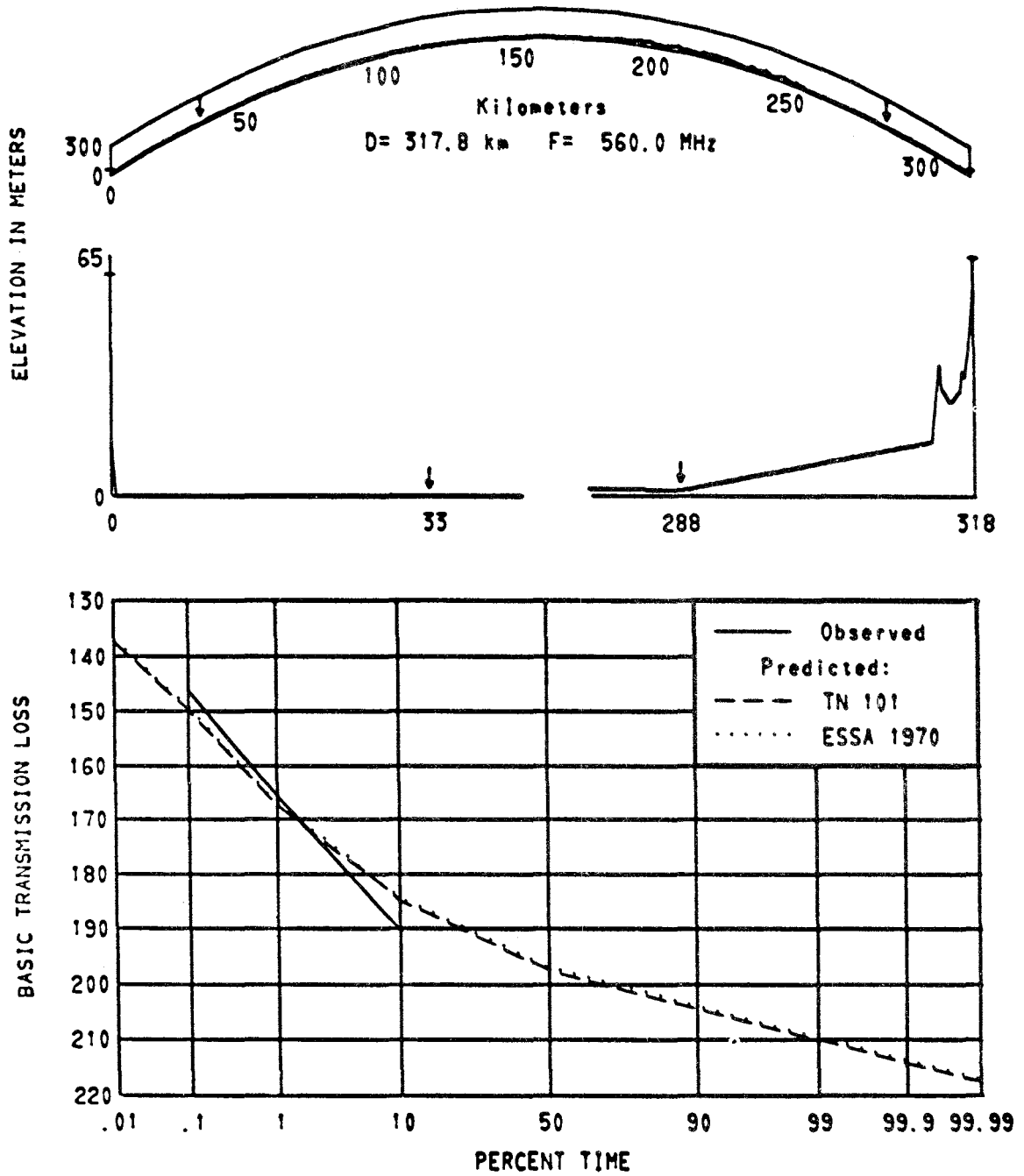


Figure 3.148 Path 1990

PATH 1991 SCHEVENINGEN NETH - SKEFFINGTON ENG

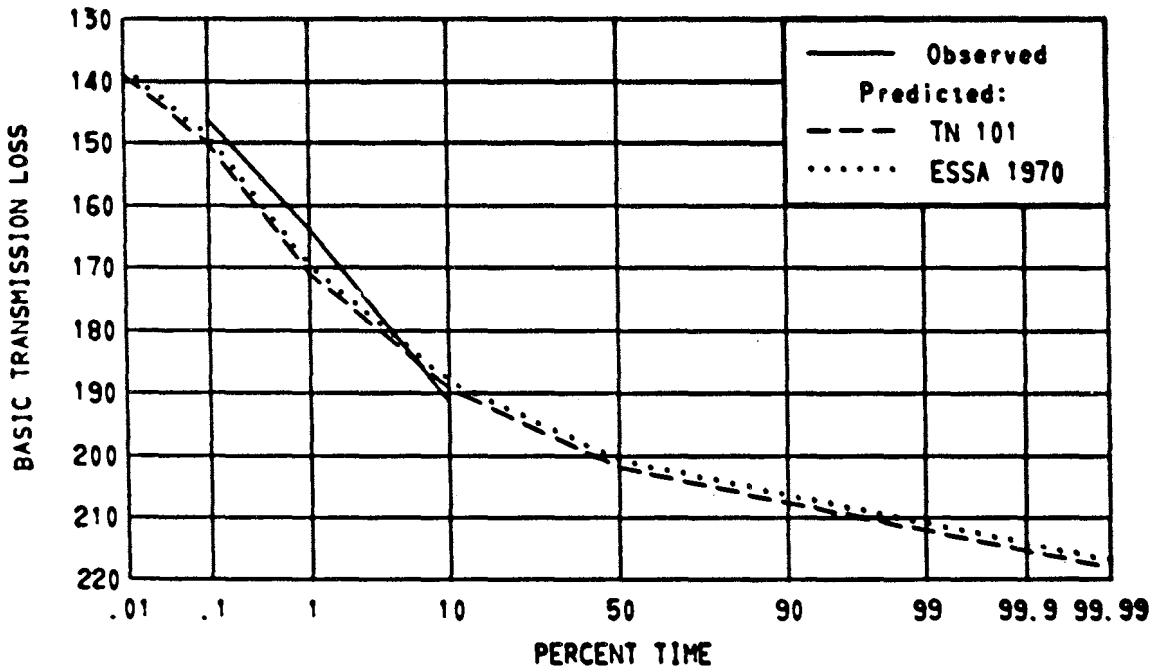
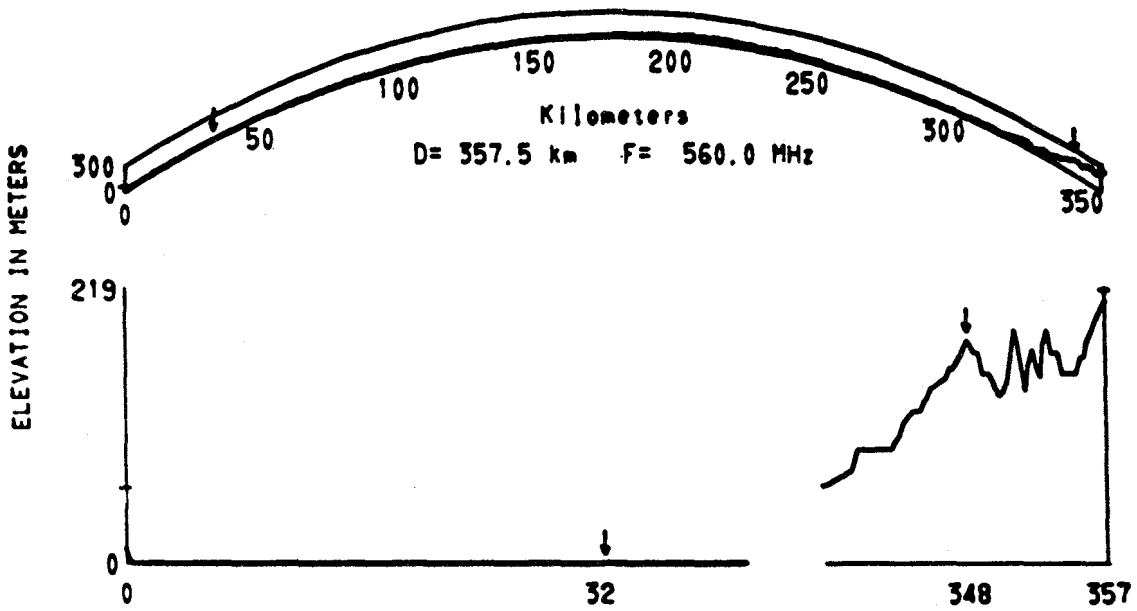
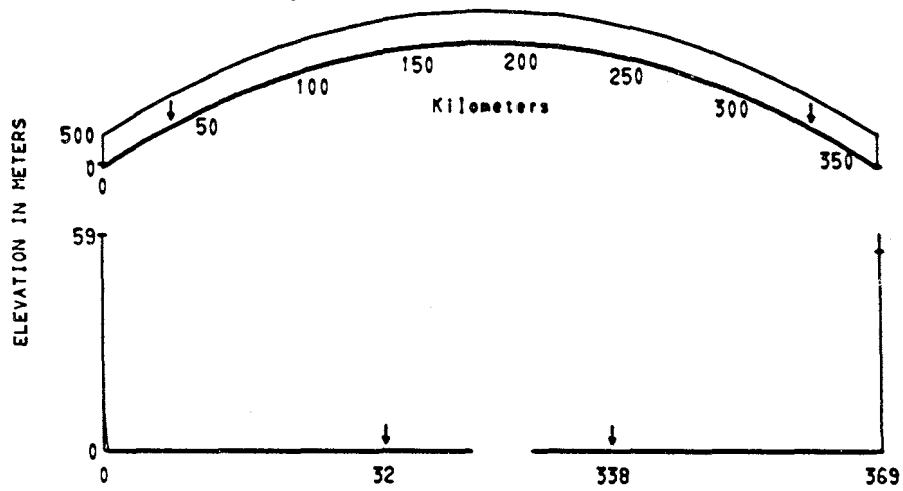
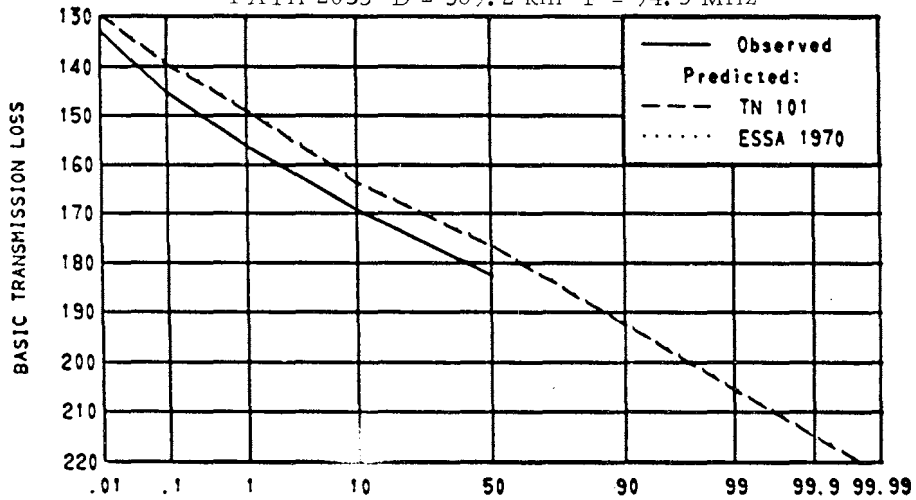


Figure 3.149 Path 1991

SCHEVENINGEN NETH - FLAMBOROUGH HEAD ENG
 PATHS 2035 2051 2086 2110



PATH 2035 D = 369.2 km F = 94.3 MHz



PATH 2051 D = 369.2 km F = 187.0 MHz

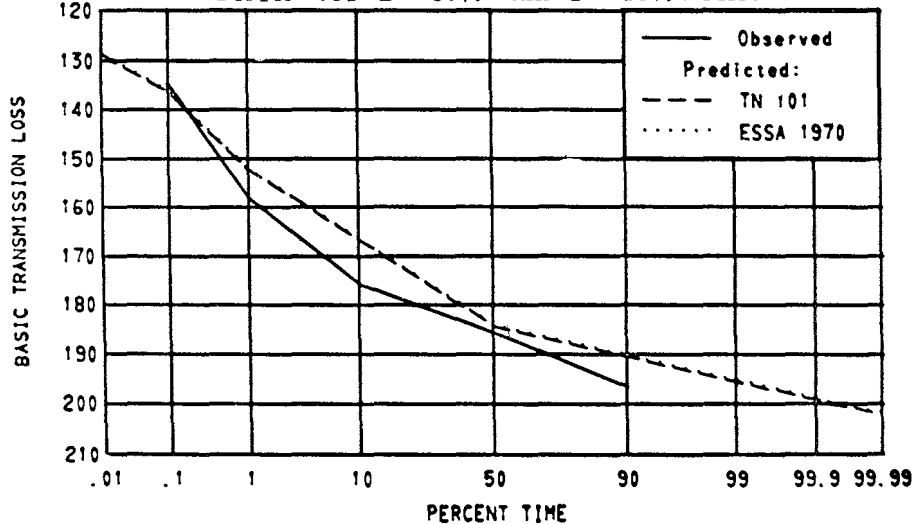
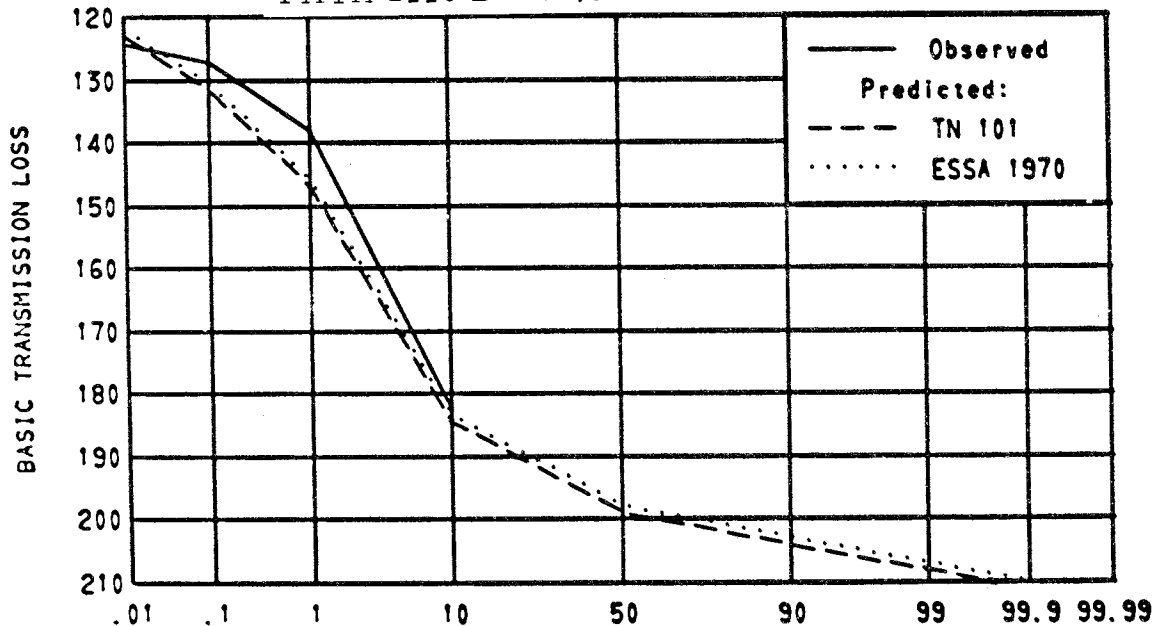


Figure 3.150 Paths 2035 2051

SCHEVENINGEN NETH - FLAMBOROUGH HEAD ENG

PATH 2110 D = 369.2 km F = 560.0 MHz



PATH 2086 D = 369.2 km F = 774.0 MHz

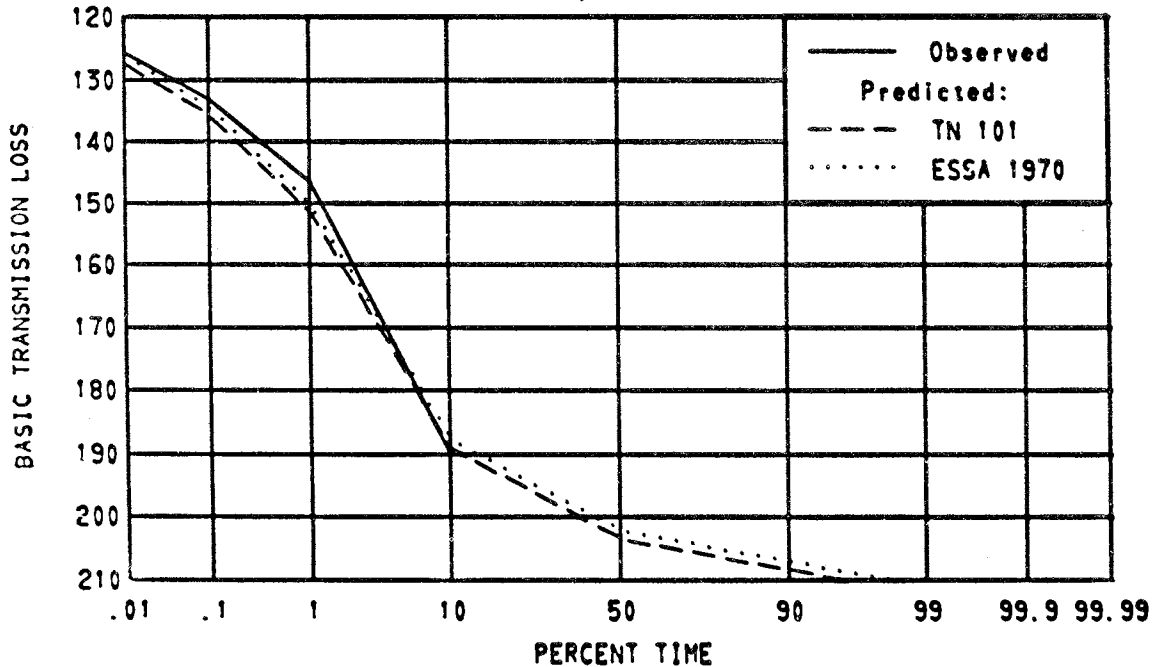


Figure 3.151 Paths 2086 2110

PATH 2115 SCHEVENINGEN NETH - PONTOP PIKE ENG

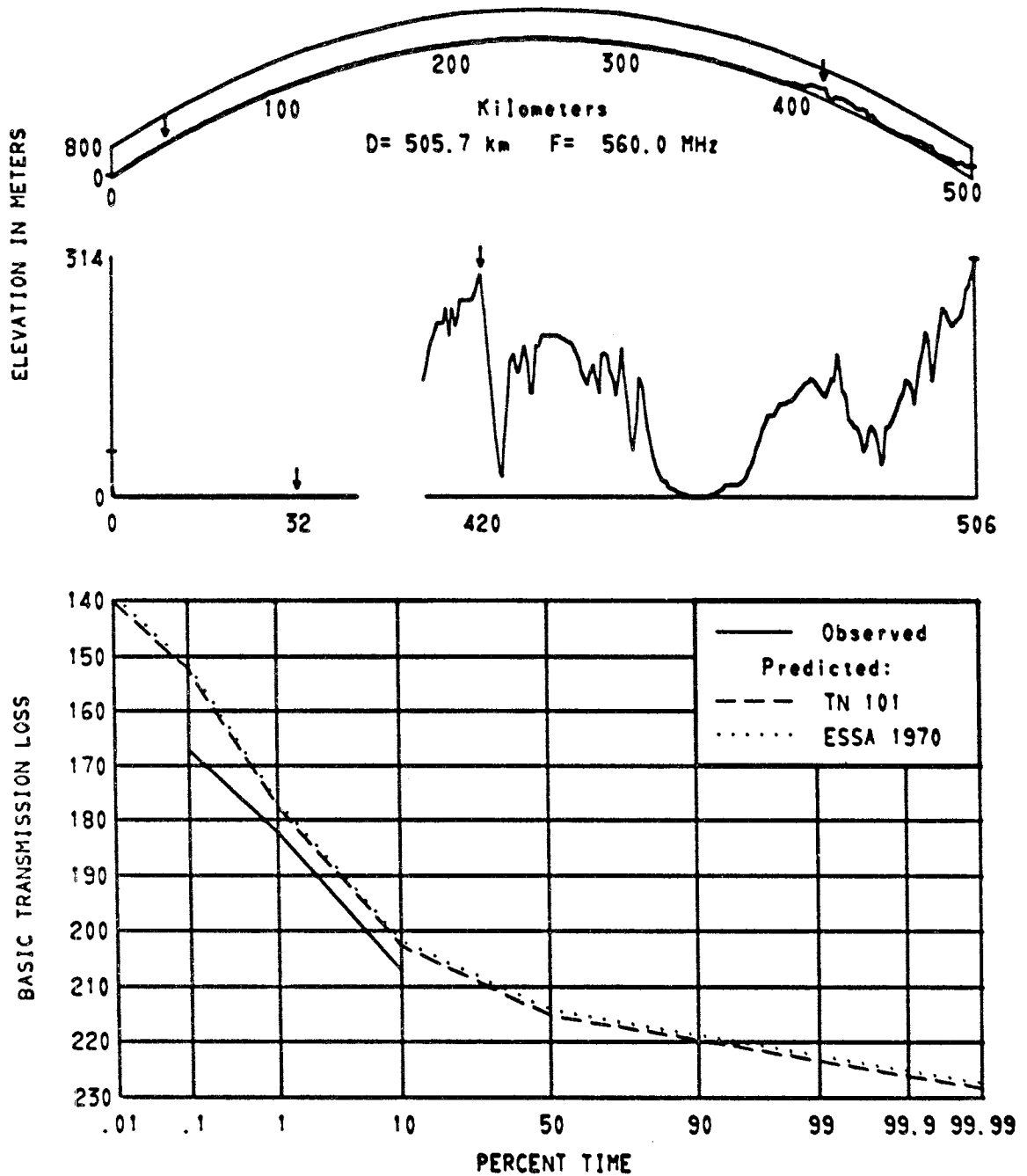
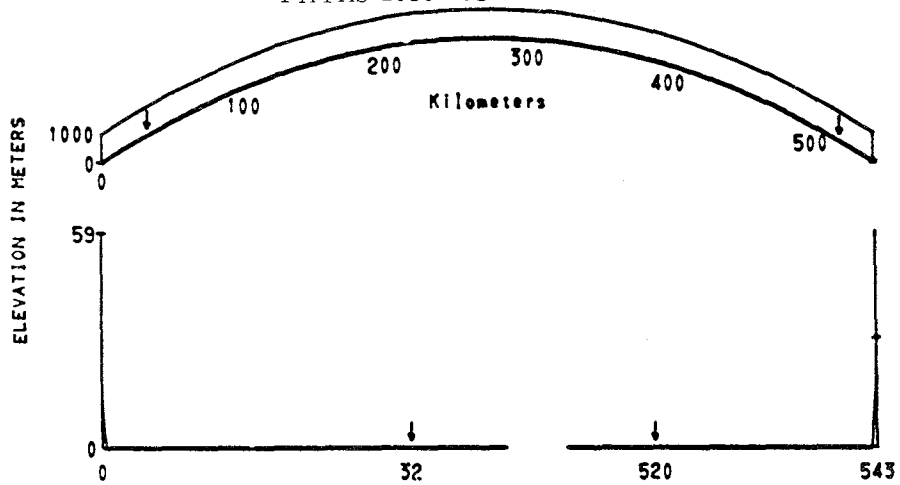
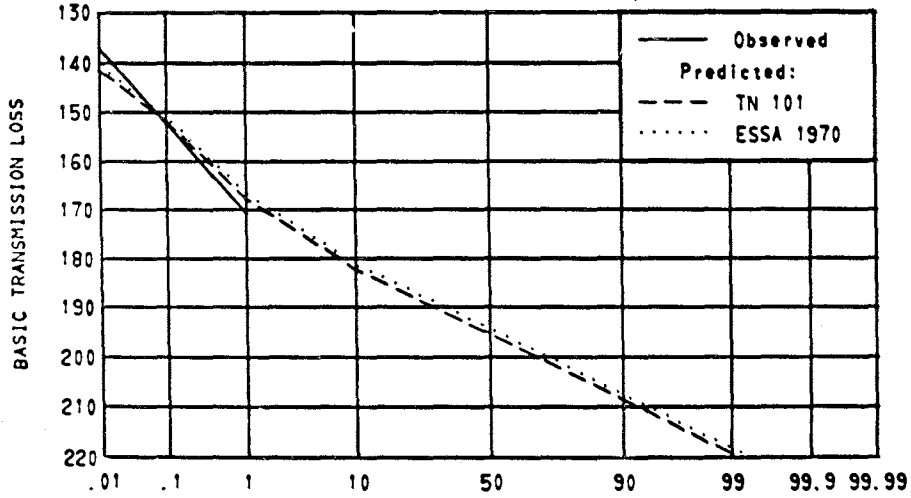


Figure 3.152 Path 2115

SCHEVENINGEN NETH - NEWTON-BY-THE-SEA ENG
 PATHS 2036 2052 2087 2111



PATH 2036 D = 543.3 km F = 94.3 MHz



PATH 2052 D = 543.3 km F = 187.0 MHz

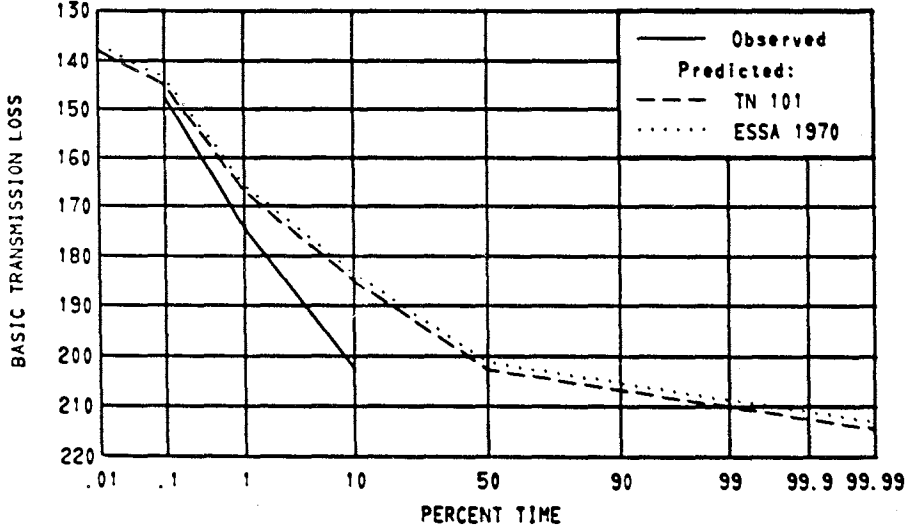


Figure 3.153 Paths 2036 2052

SCHEVENINGEN NETH - NEWTON-BY-THE-SEA ENG

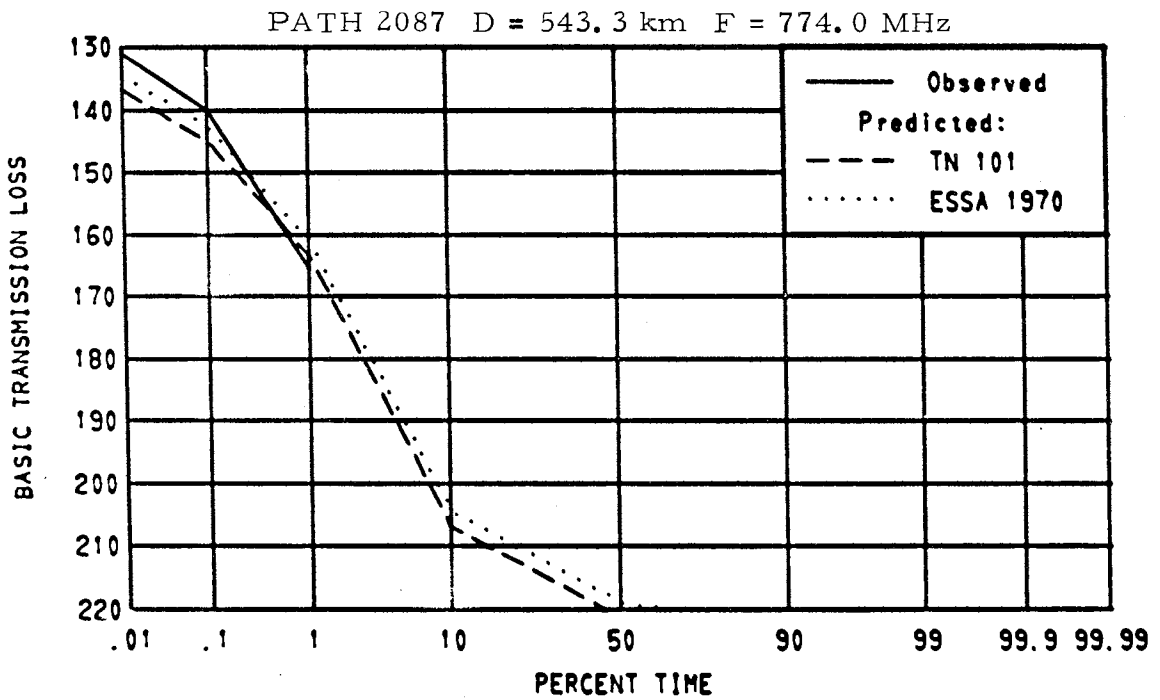
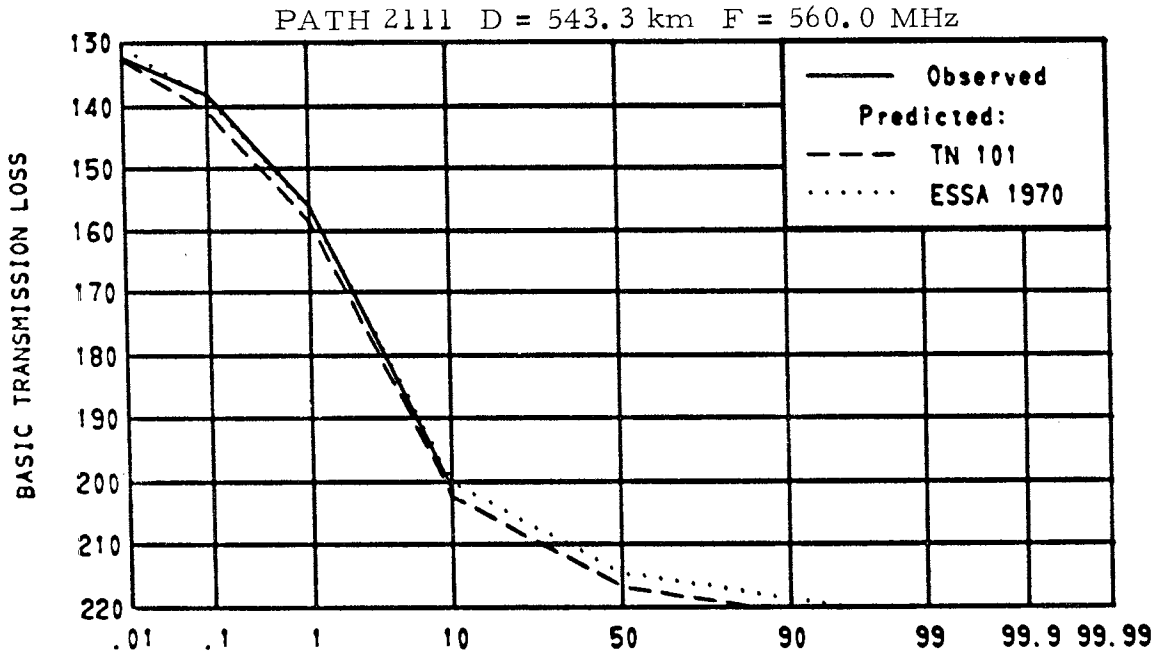


Figure 3.154 Paths 2087 2111

PATHS 2088 2112 SCHEVENINGEN NETH - BRIDGE OF DON SCOT

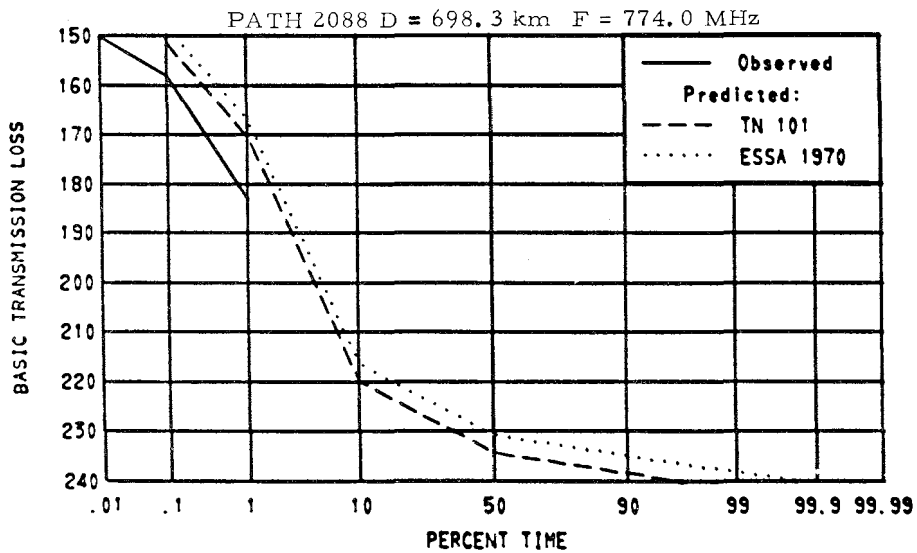
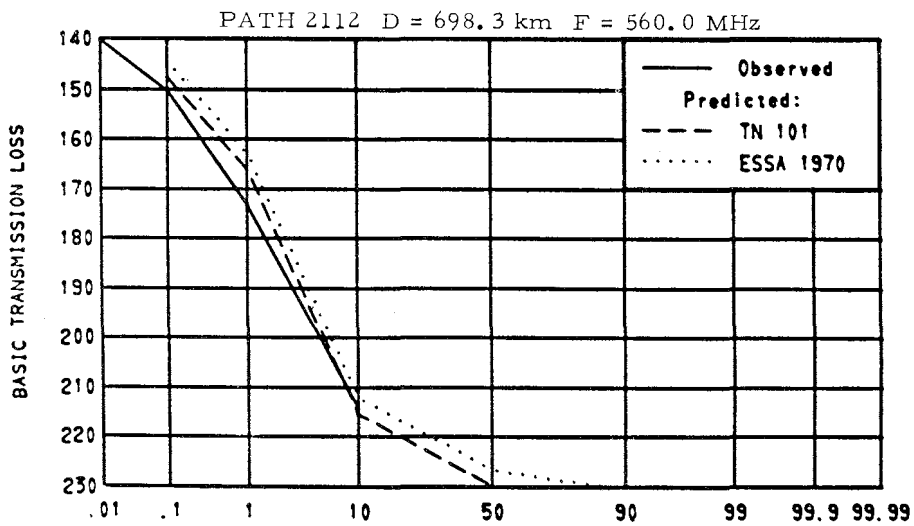
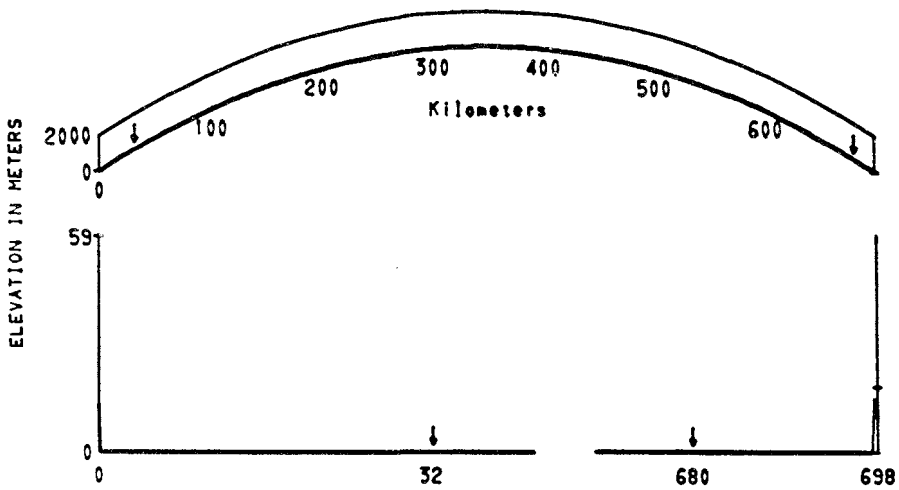
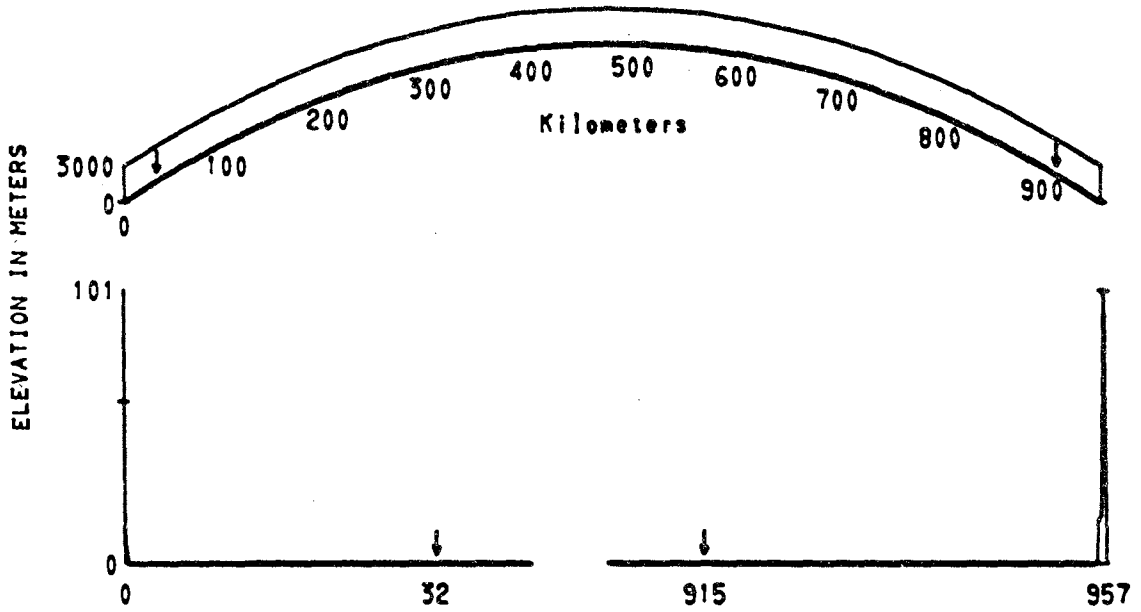


Figure 3.155 Paths 2088 2112

SCHEVENINGEN NETH - LERWICK SHETLAND IS
PATHS 2038 2054 2113



PATH 2038 D = 957.0 km F = 94.3 MHz

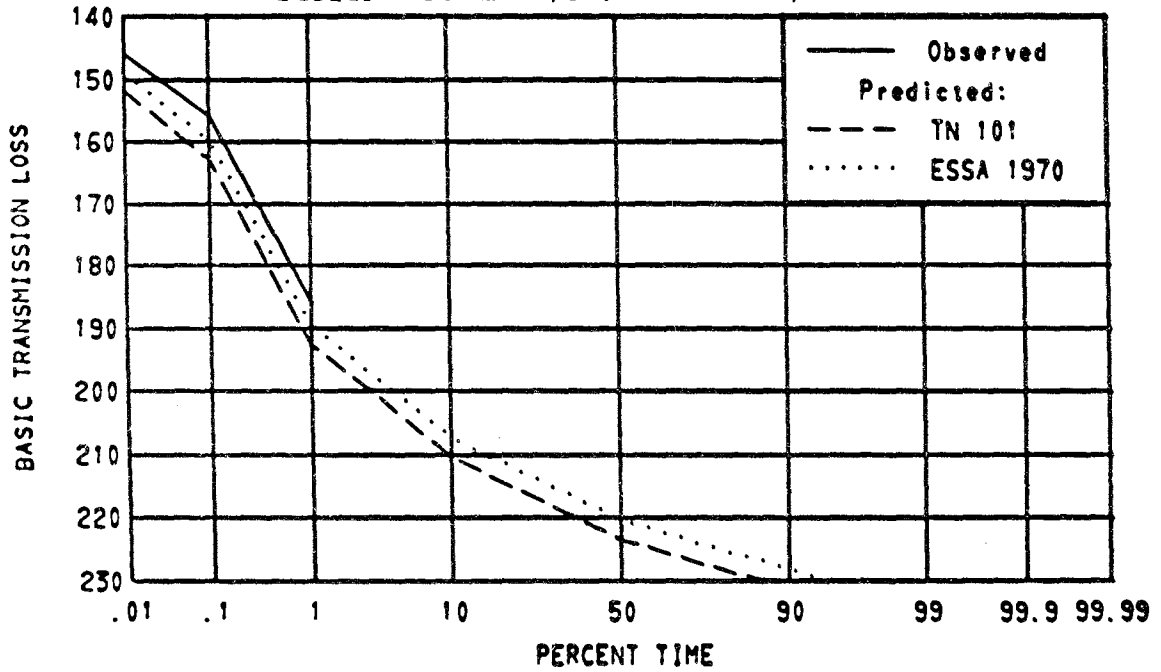
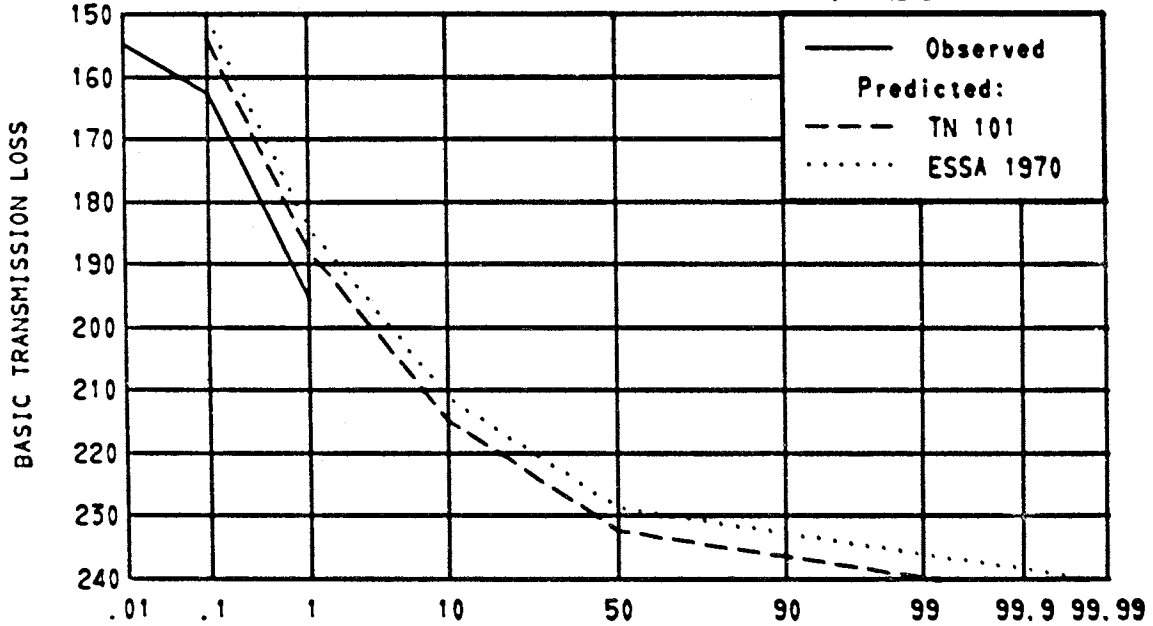


Figure 3.156 Path 2038

SCHEVENINGEN NETH - LERWICK SHETLAND IS

PATH 2054 D = 957.0 km F = 187.0 MHz



PATH 2113 D = 957.0 km F = 560.0 MHz

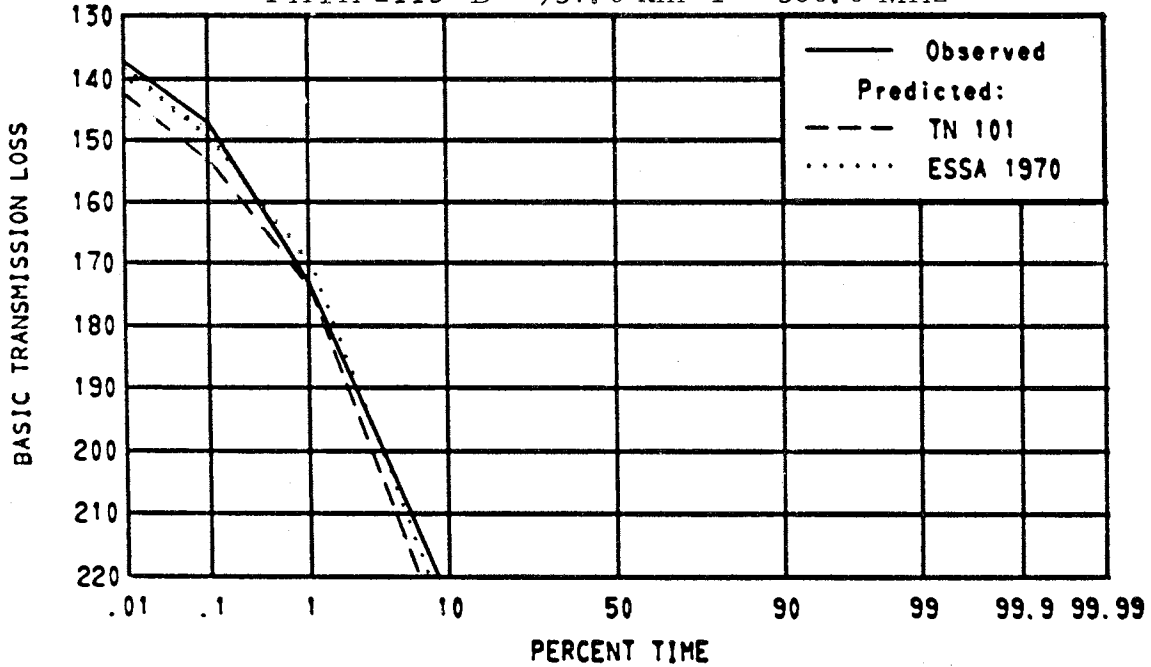


Figure 3.157 Paths 2054 2113

PATH 2148 BERGEN NORWAY - SCOUSBURGH SHETLAND IS

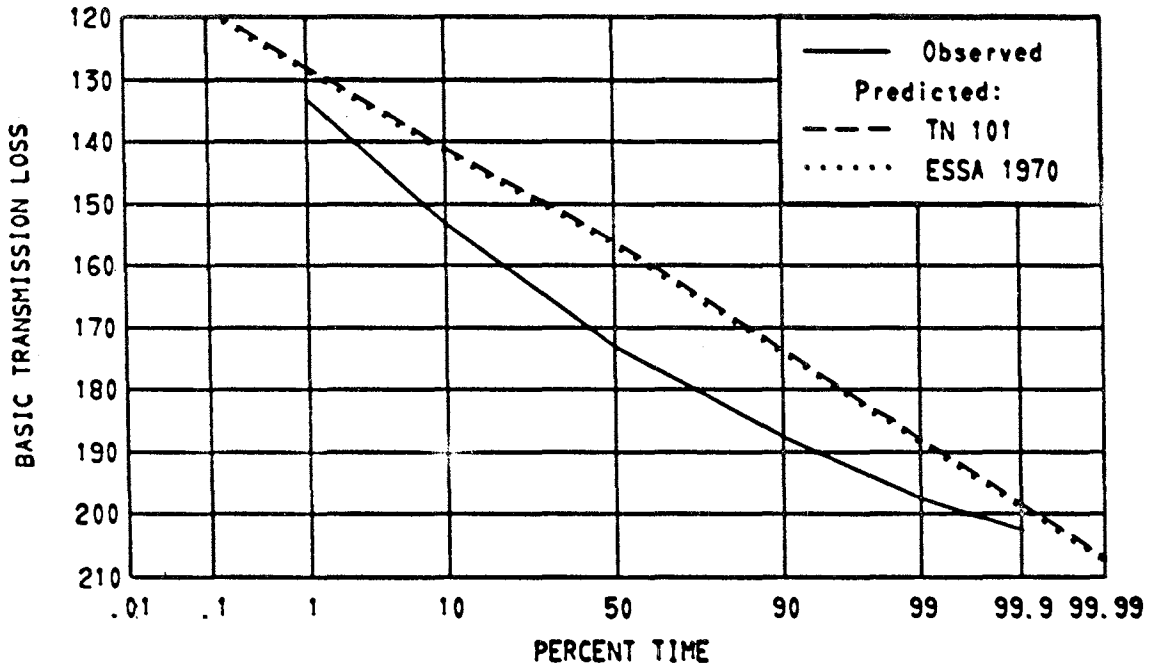
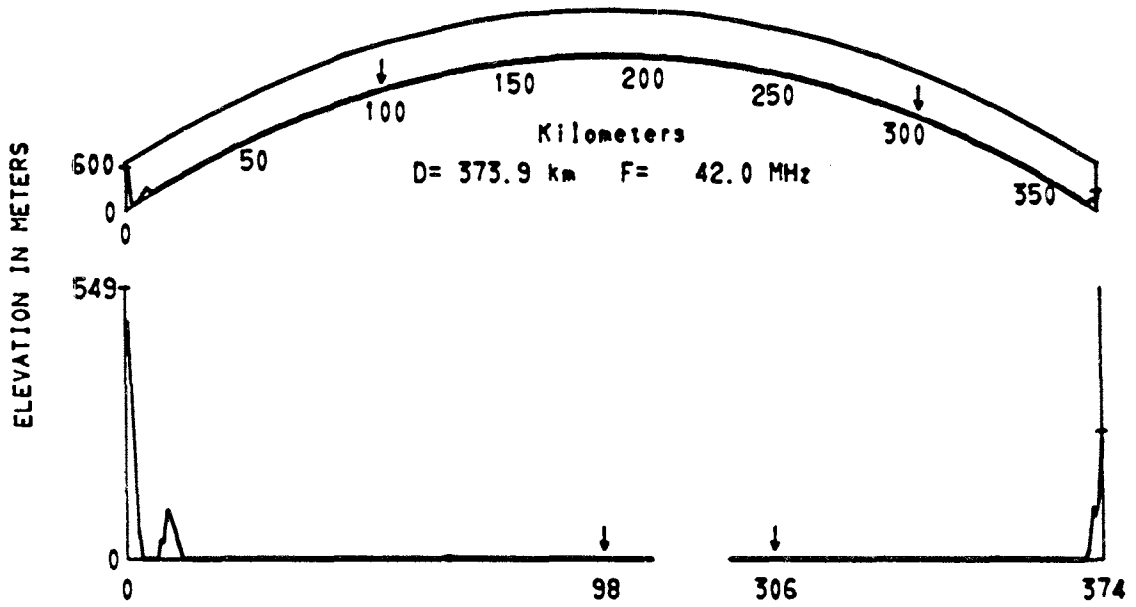


Figure 3.158 Path 2148

PATH 2371 NORWICH ENG - KREFELD W GER

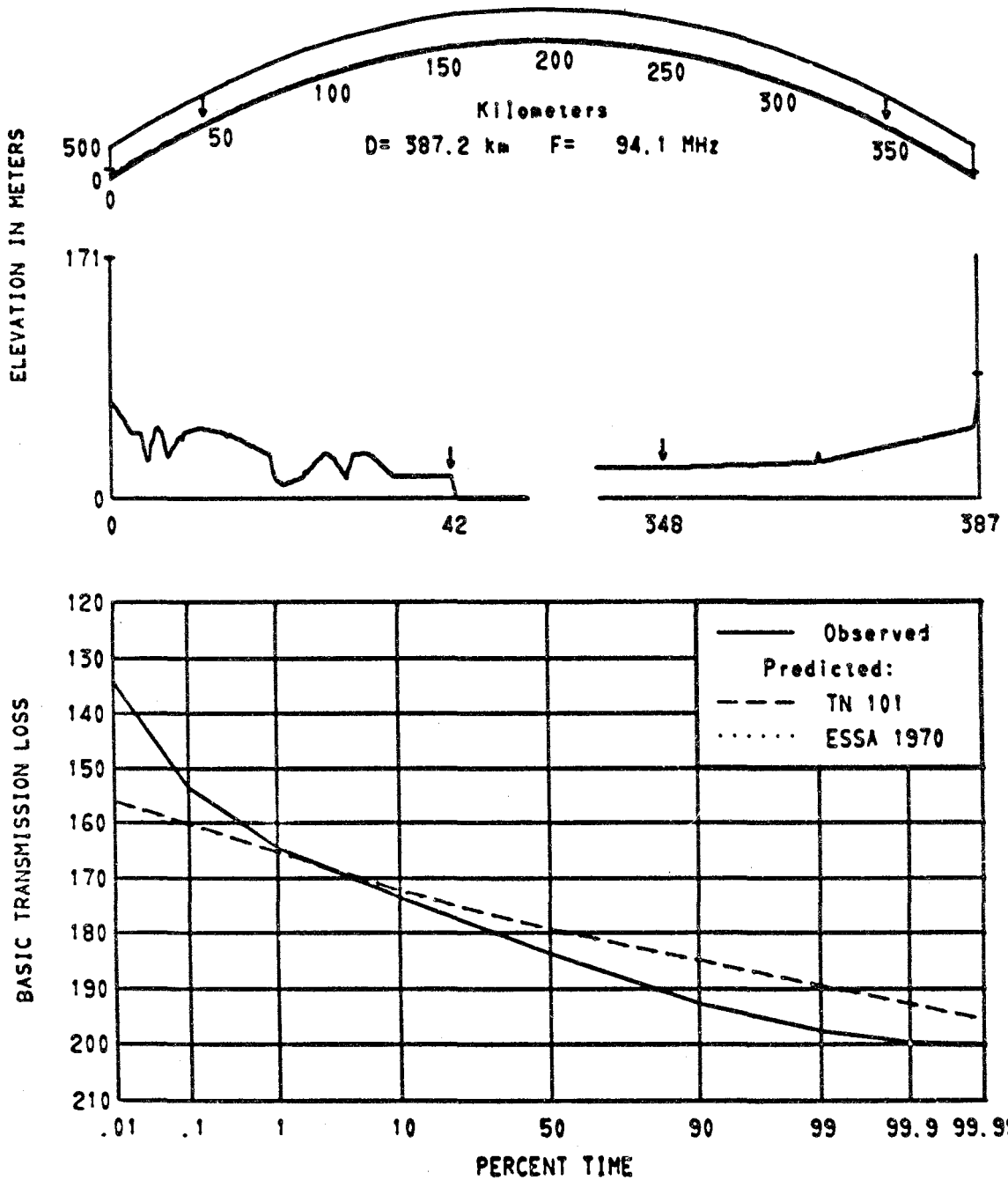


Figure 3.159 Path 2371

PATH 2419 WROTHAM ENG - KREFELD W GER

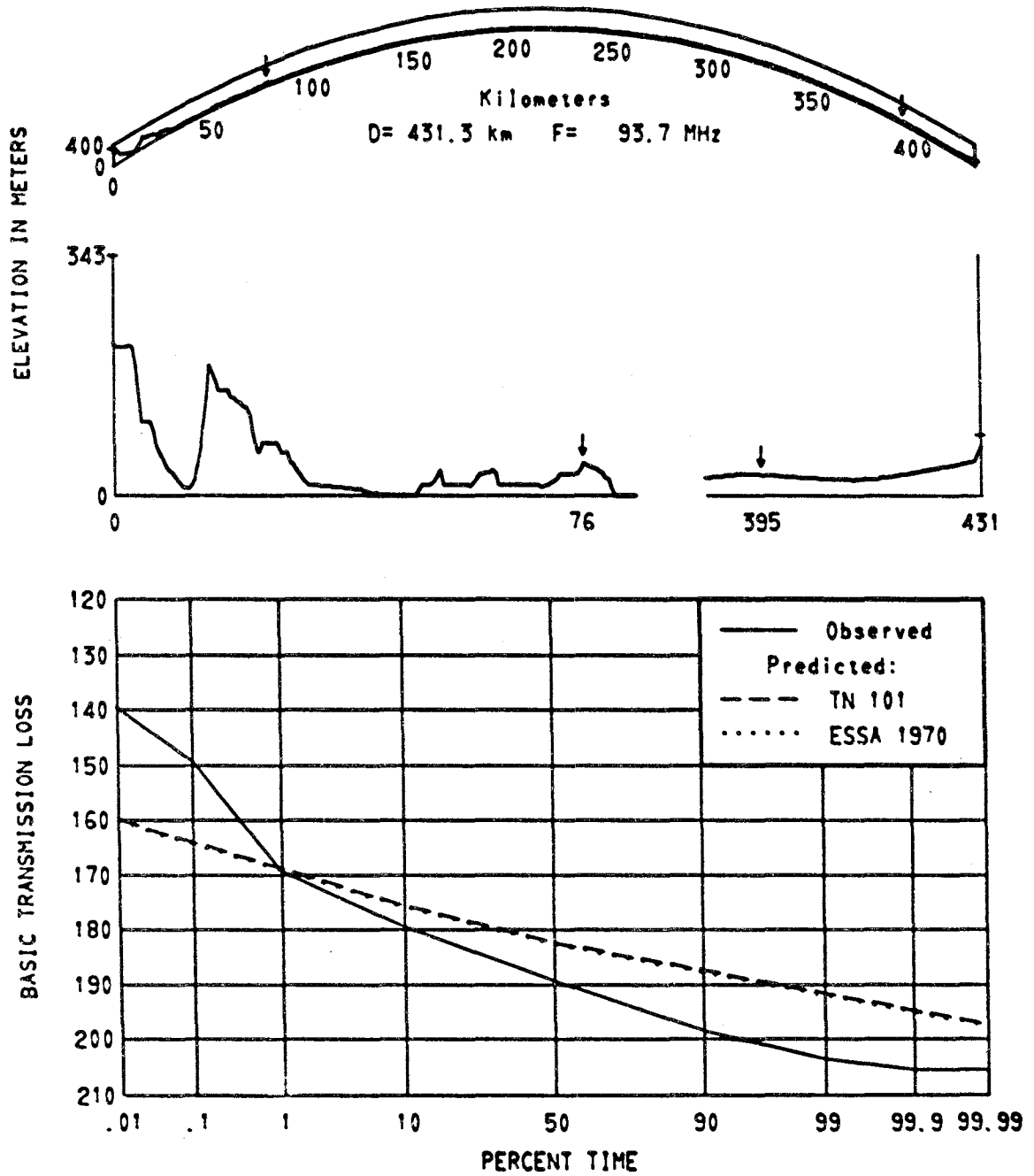


Figure 3.160 Path 2419

PATH 2357 CROYDON ENG - DARMSTADT W GER

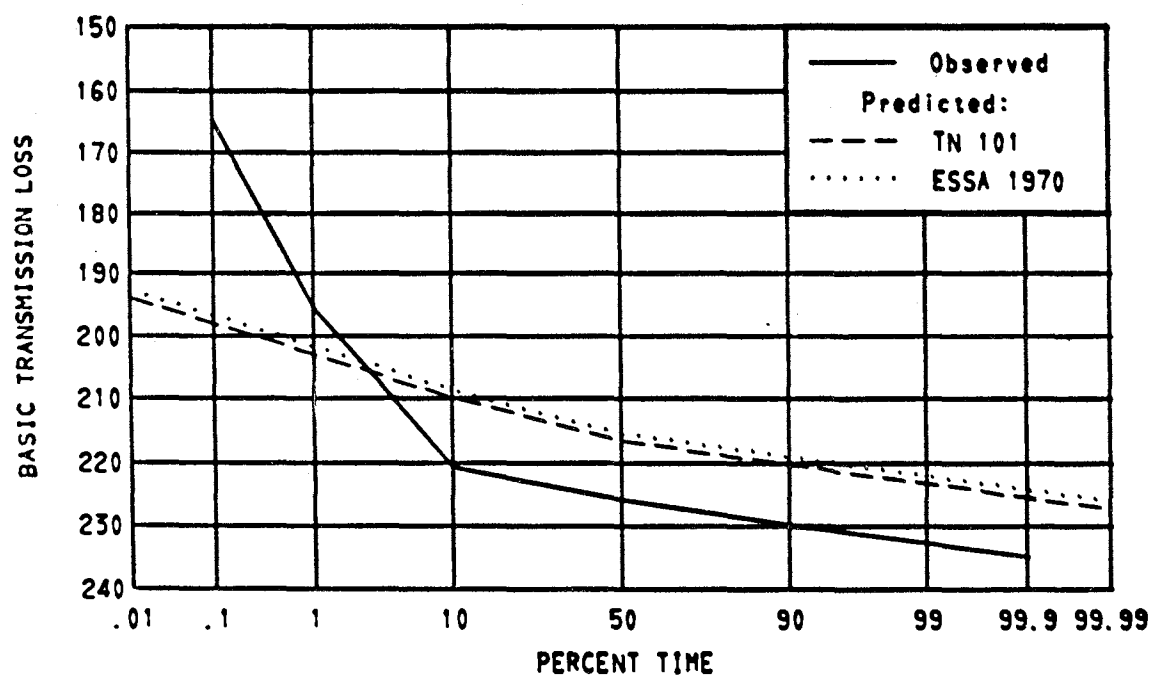
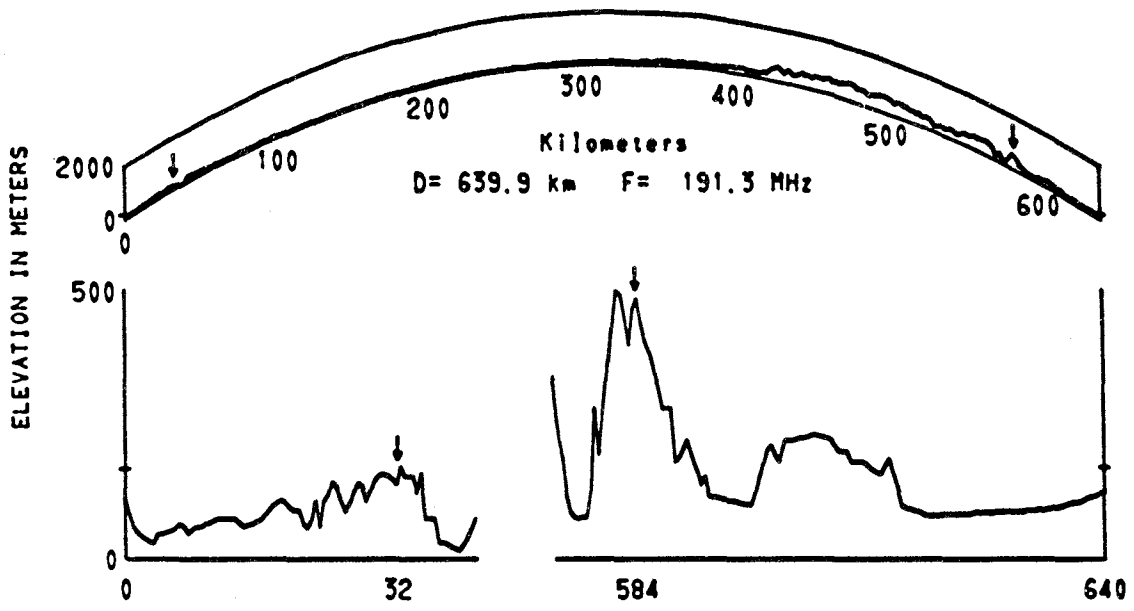


Figure 3.161 Path 2357

PATHS 2372 2383 WEDDEWARDEN W GER - HELGOLAND W GER

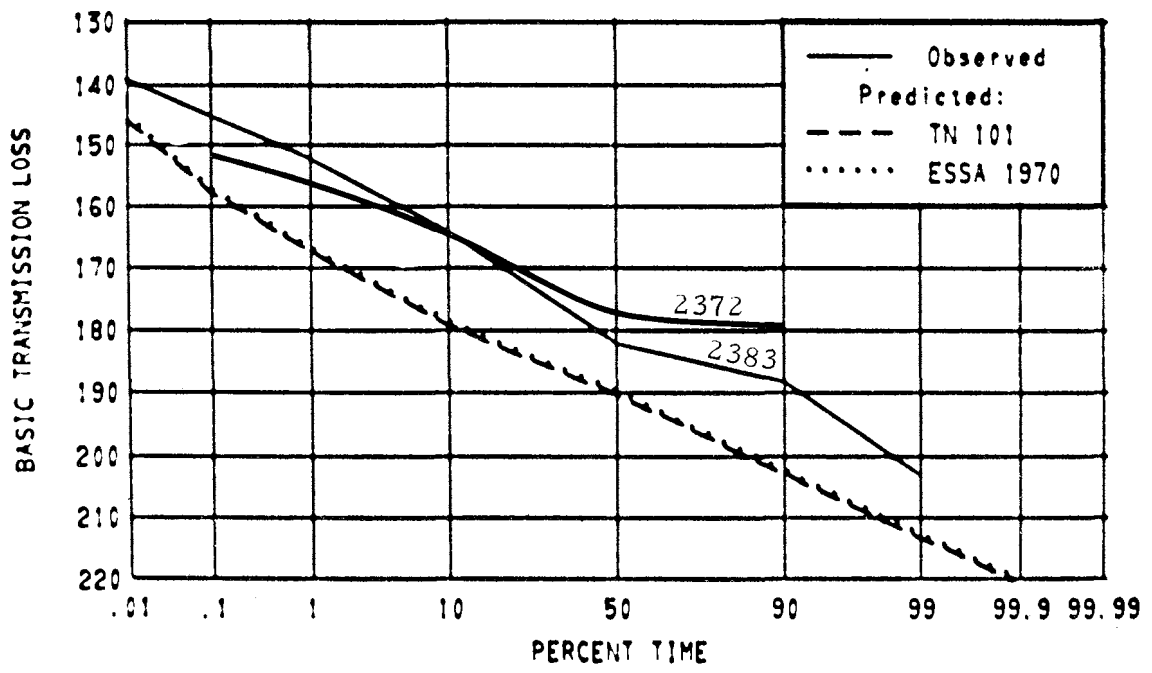
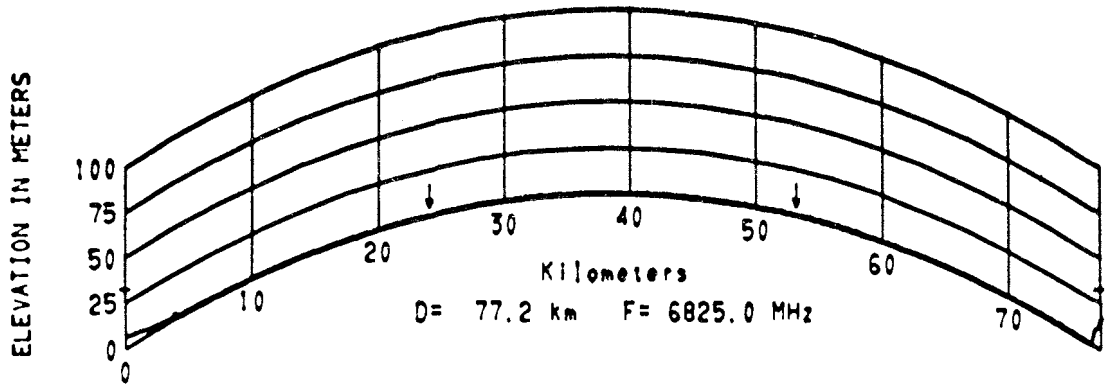


Figure 3.162 Paths 2372 2383

PATH 2401 FLENSBURG W GER - NORDERNEY W GER

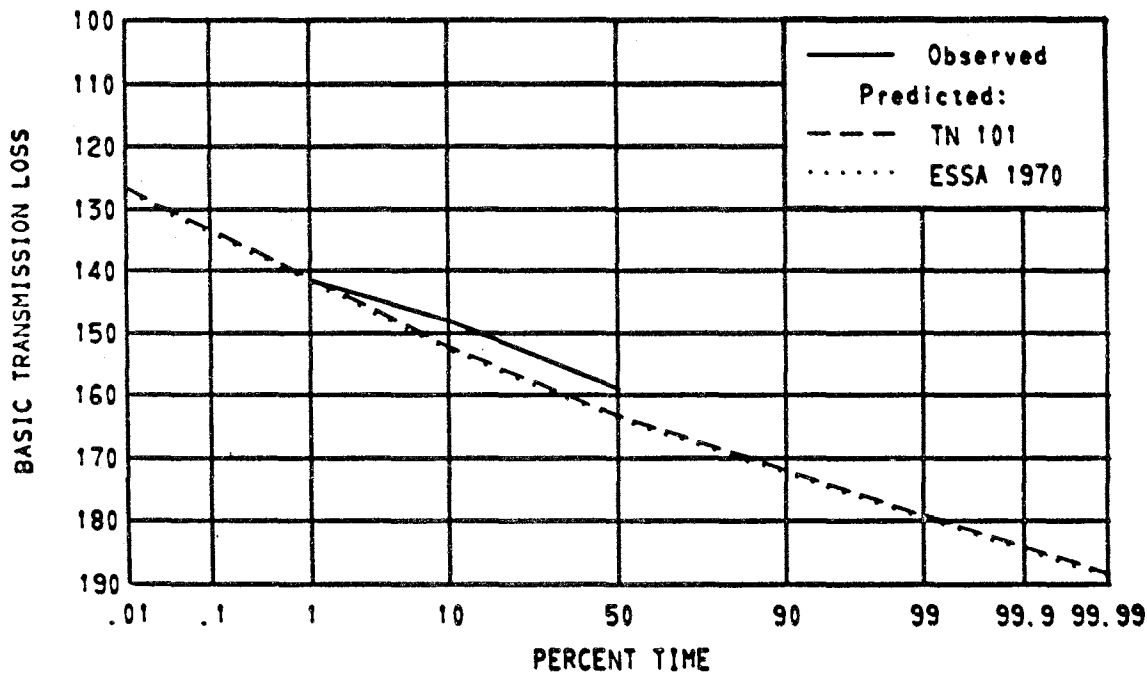
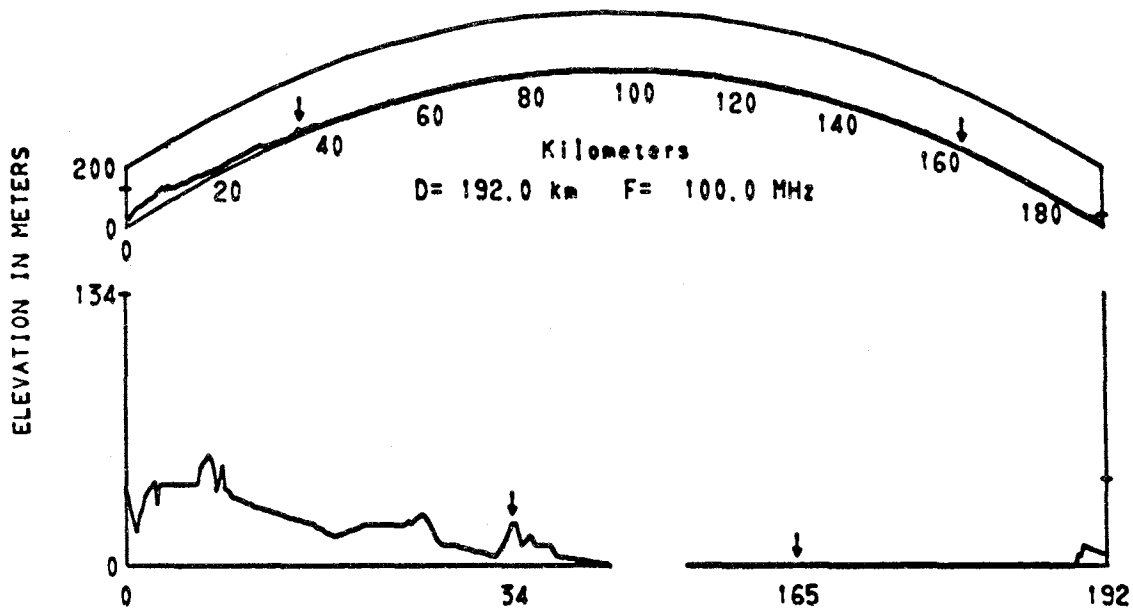


Figure 3.163 Path 2401

PATH 2375 BIELSTEIN W GER - HAMBURG W GER

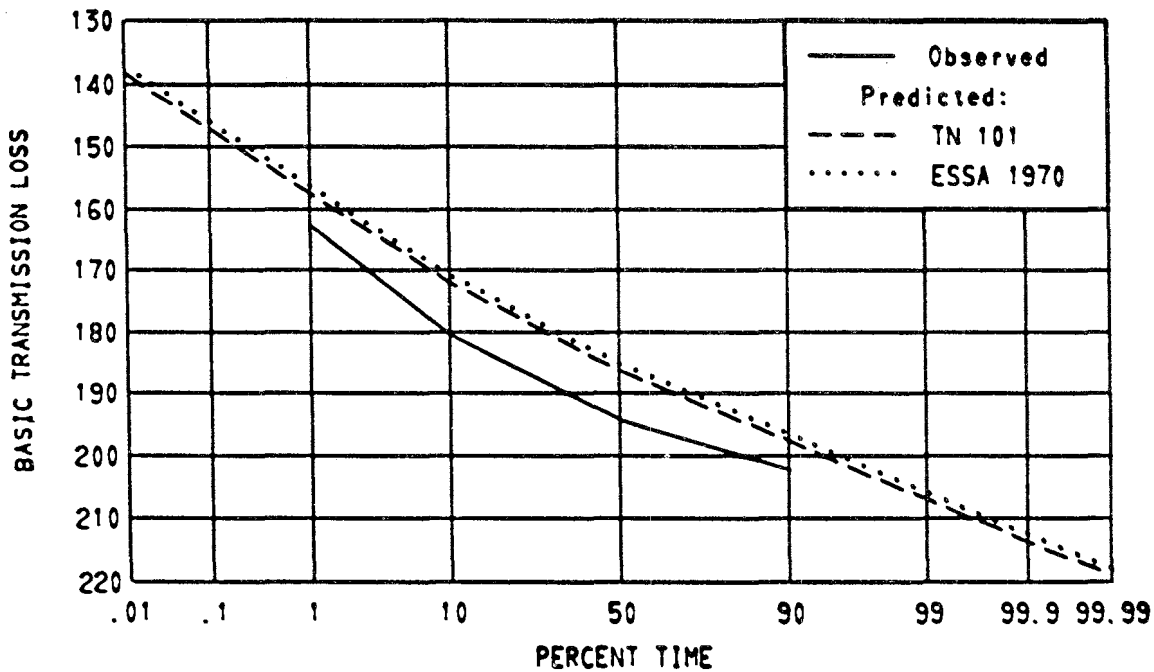
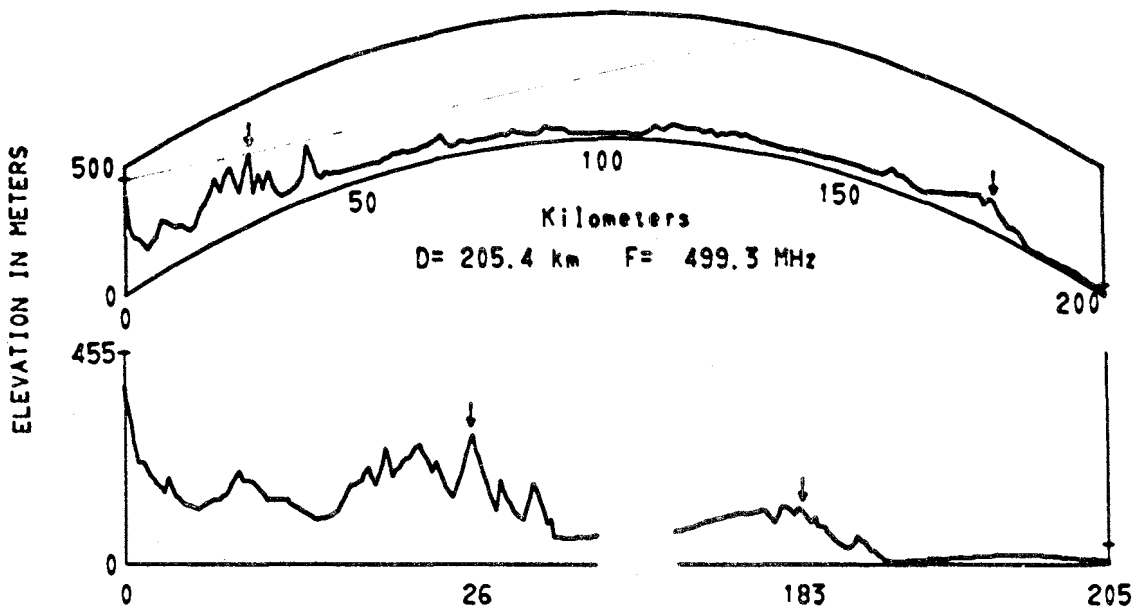


Figure 3.164 Path 2375

PATH 2356 BIELSTEIN W GER - DARMSTADT W GER

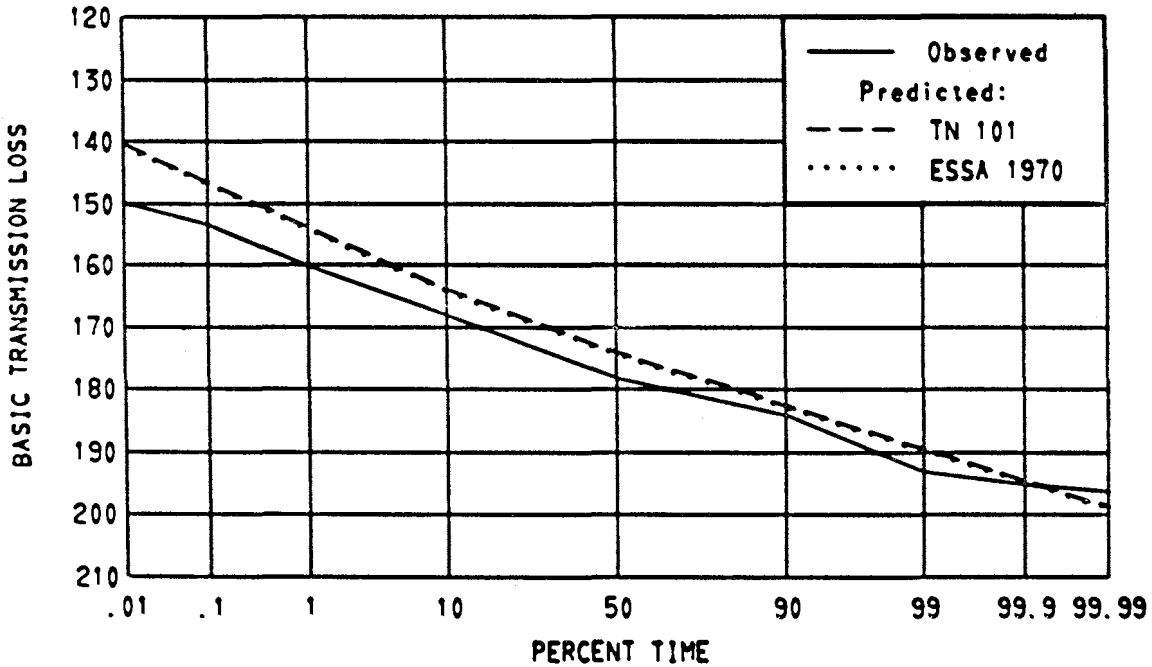
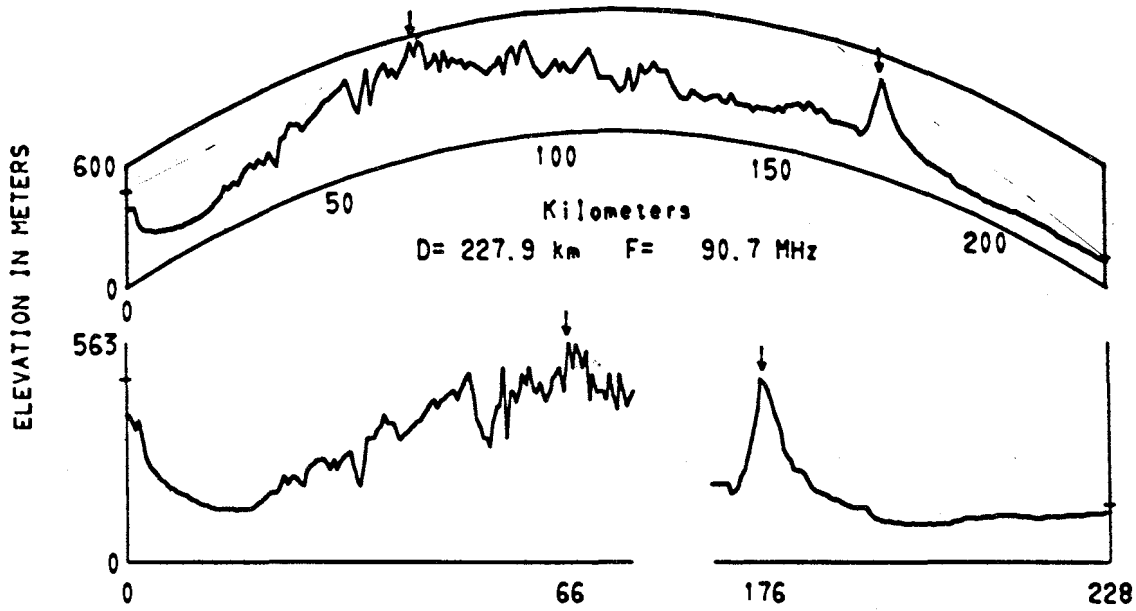


Figure 3.165 Path 2356

PATH 2368 BERLIN-NIKOLASSEE W GER - LOMBRUGGE W GER

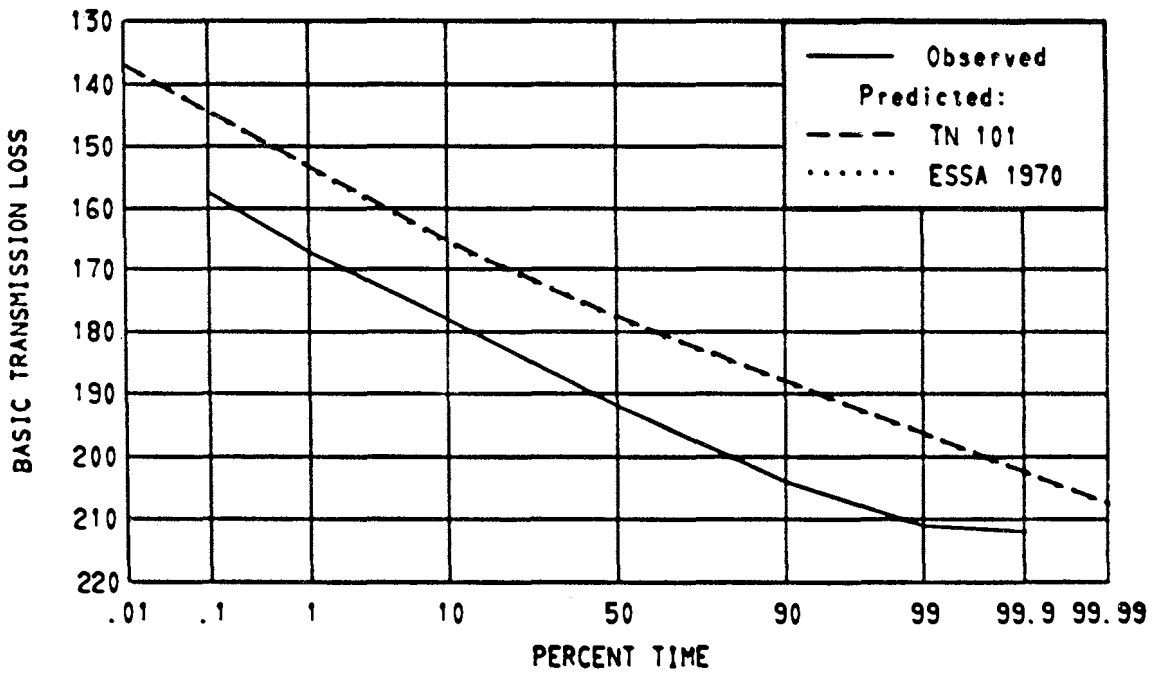
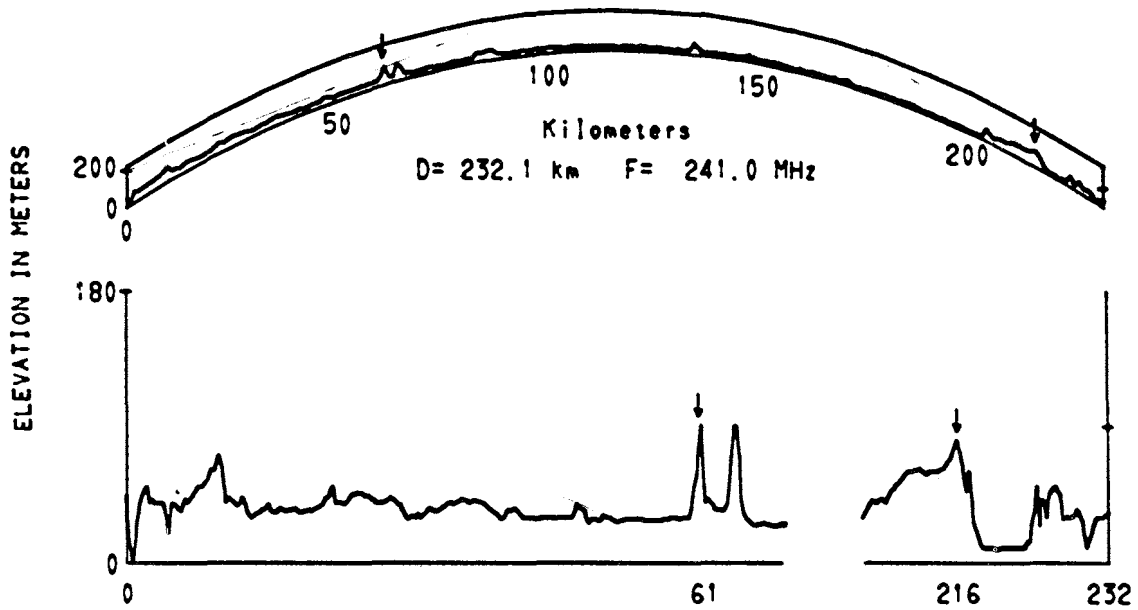


Figure 3.166 Path 2368

PATHS 2360 TO 2362 HOCHBLAUEN W GER - DARMSTADT W GER

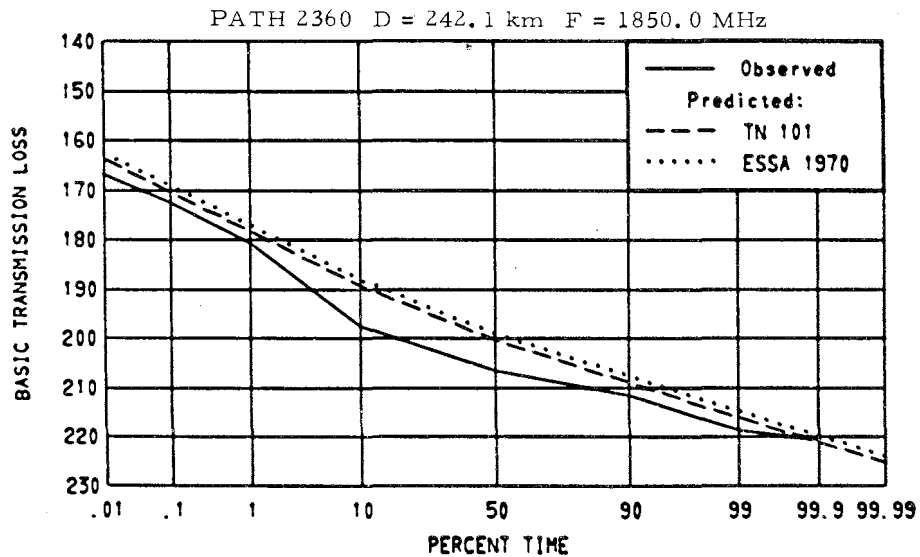
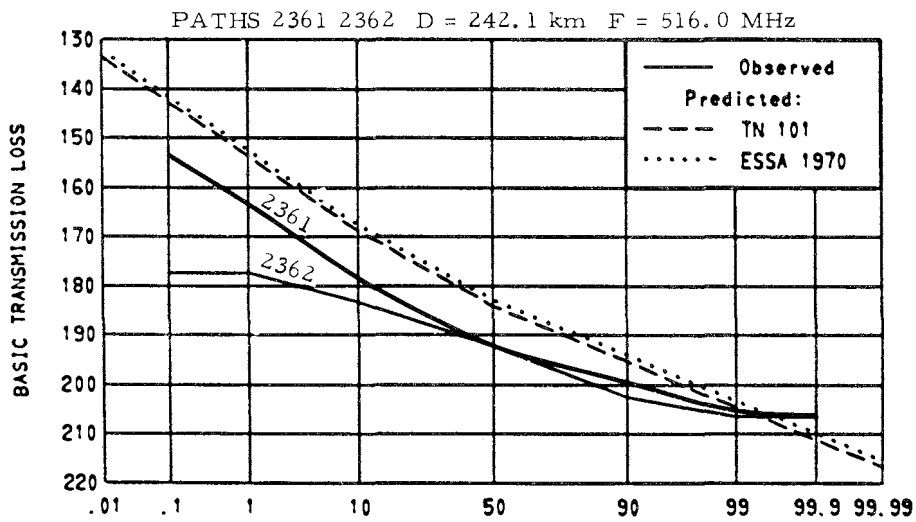
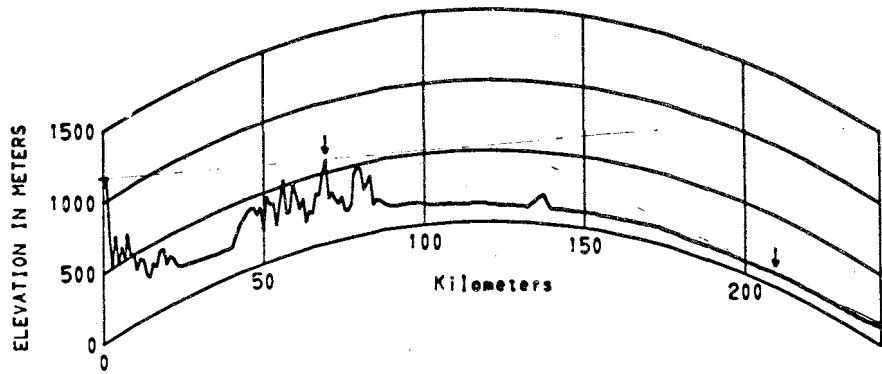


Figure 3.167 Paths 2360 to 2362

PATH 2376 BIELSTEIN W GER - KIEL W GER

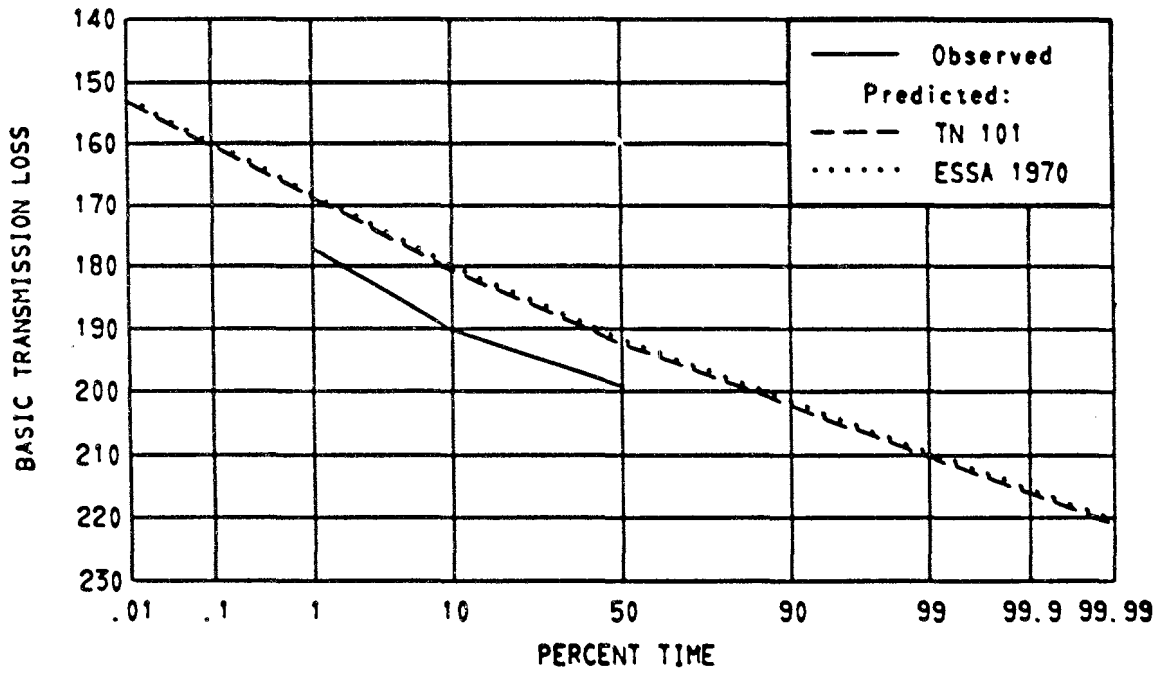
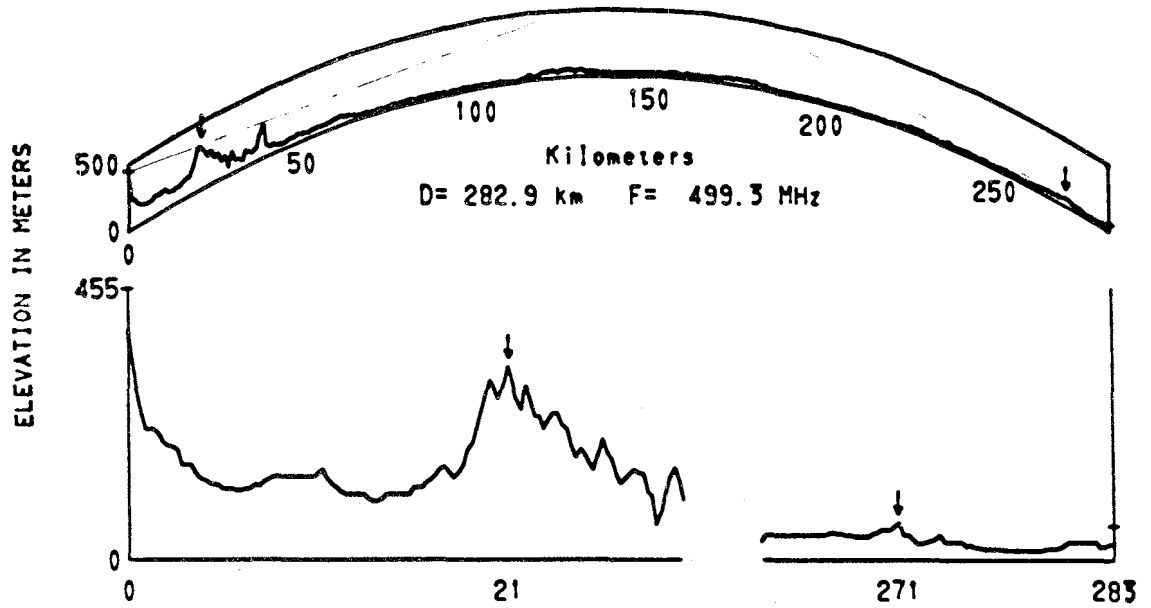


Figure 3.168 Path 2376

PATH 2377 BIELSTEIN W GER - FLENSBURG W GER

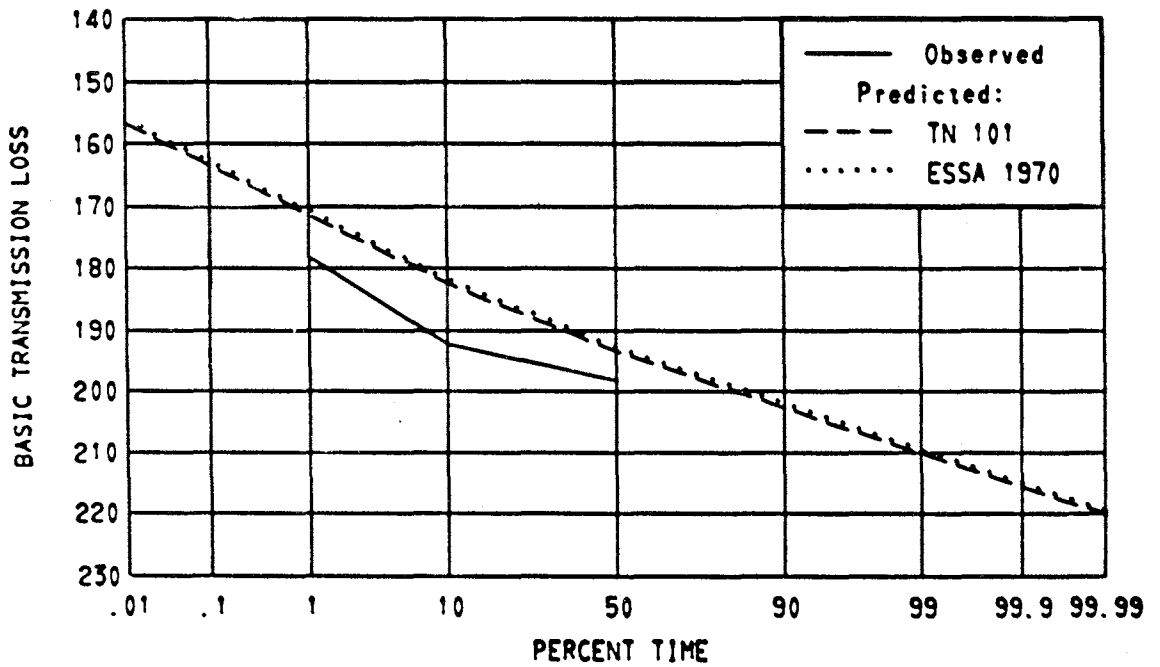
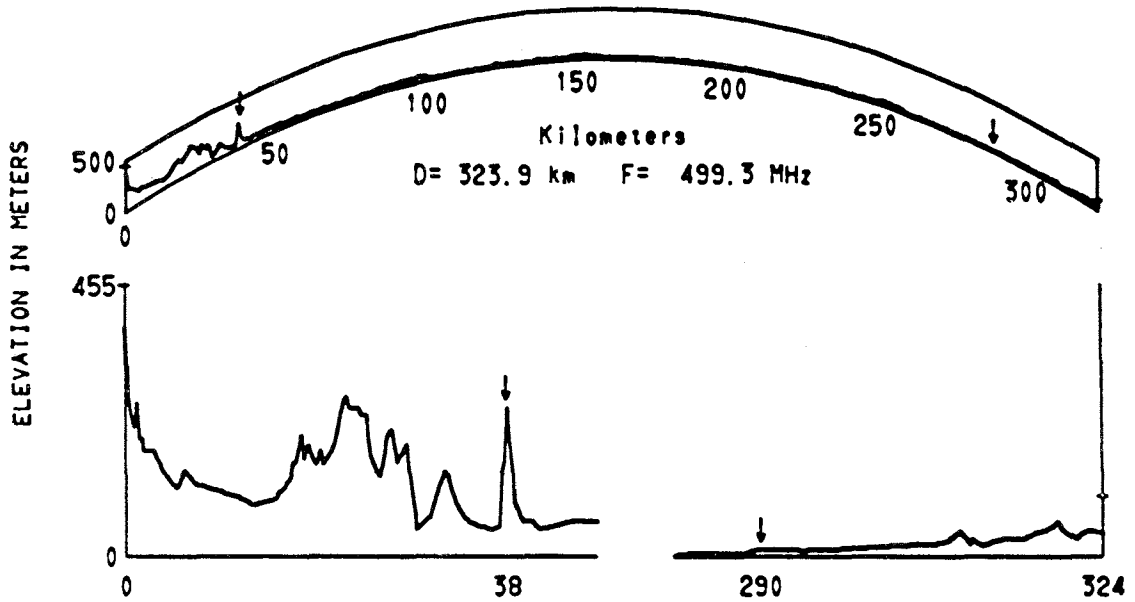


Figure 3.169 Path 2377

PATH 2367 BERLIN-NIKOLASSEE W GER - HELGOLAND W GER

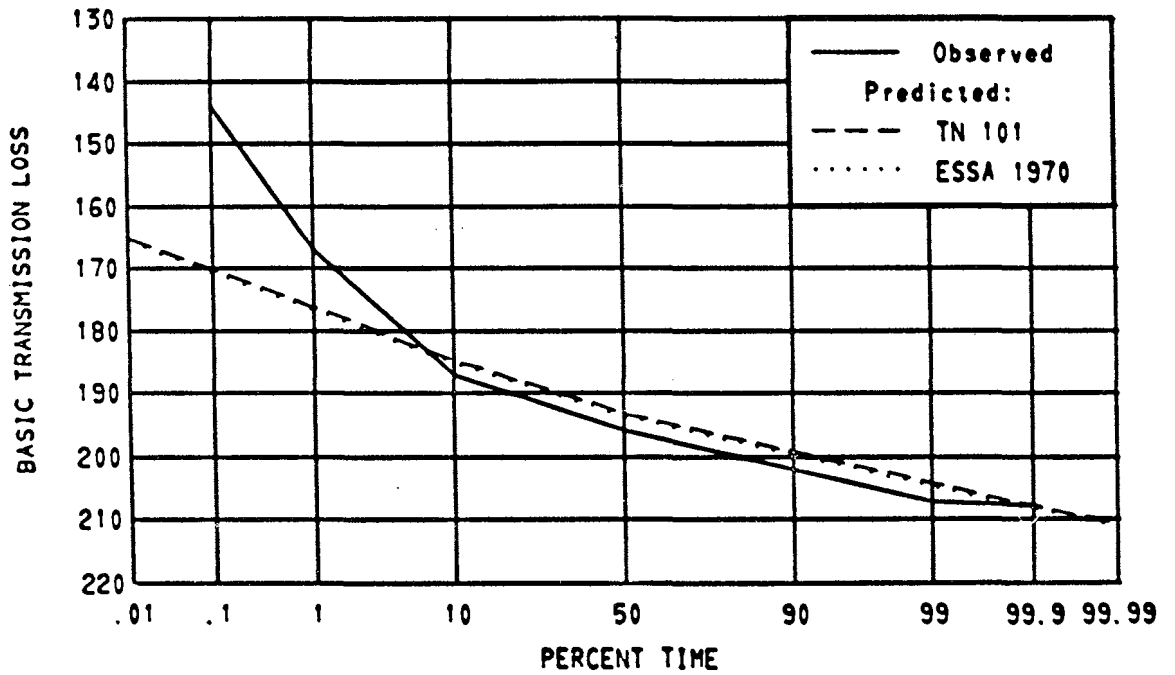
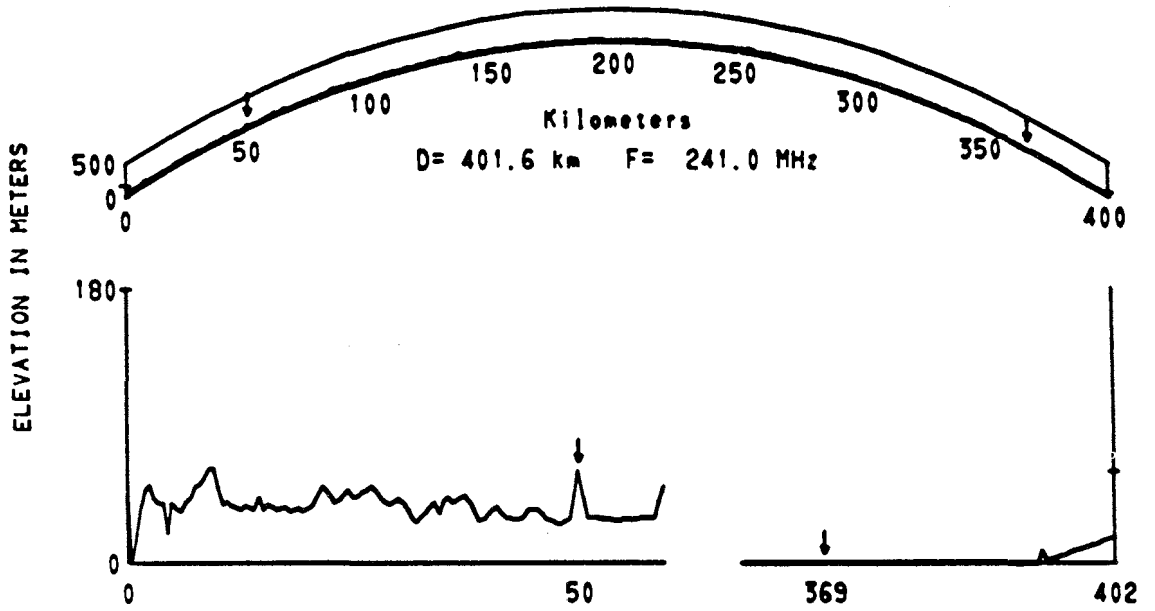


Figure 3.170 Path 2367

PATH 2388 LOHBRUGGE W GER - DARMSTADT W GER

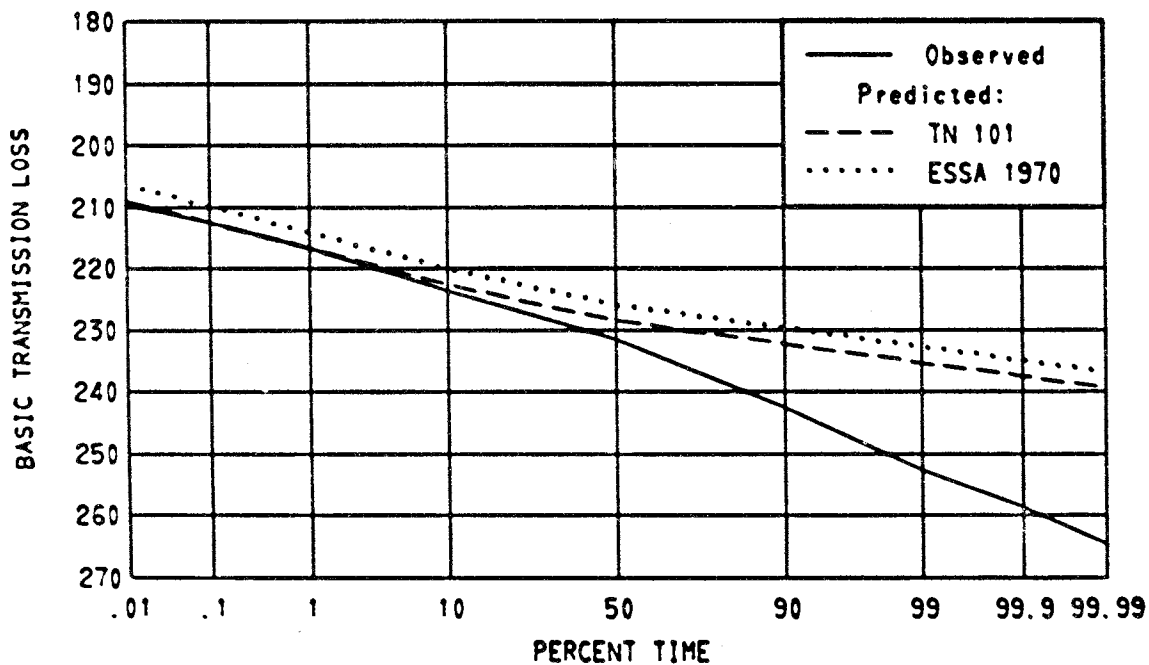
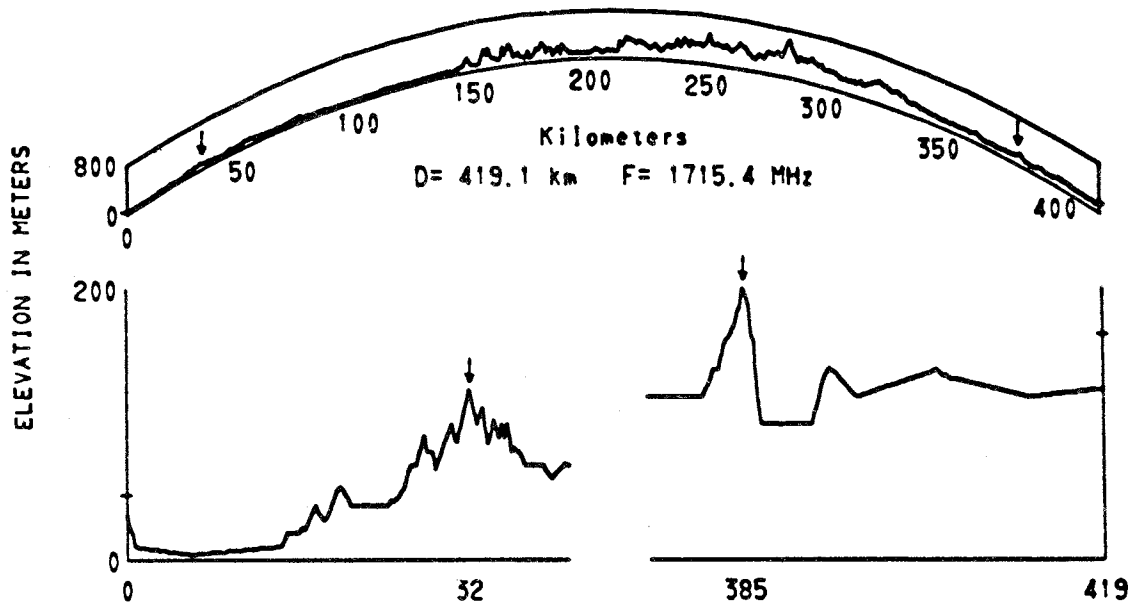


Figure 3.171 Path 2388

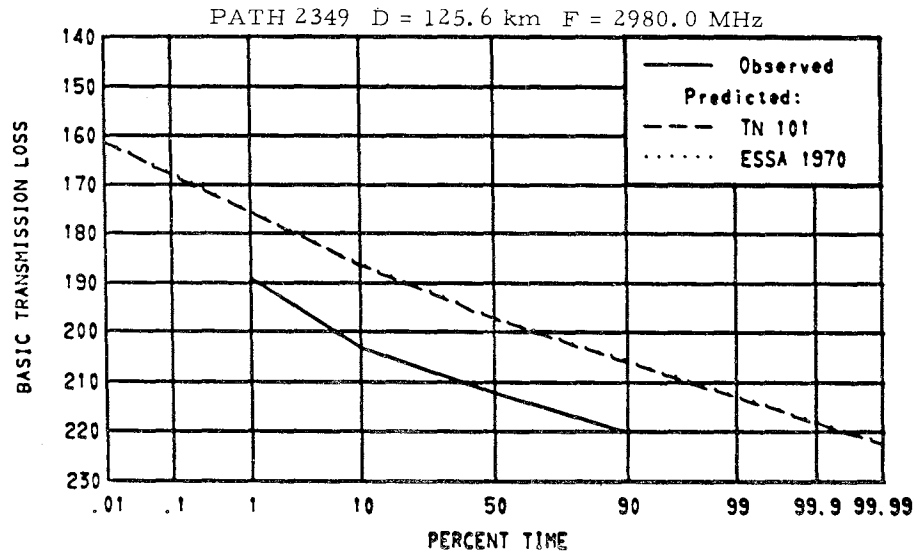
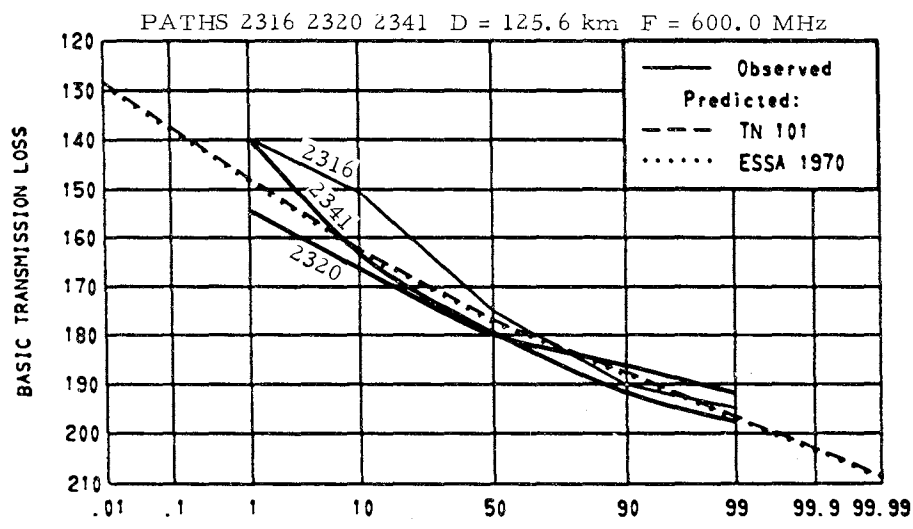
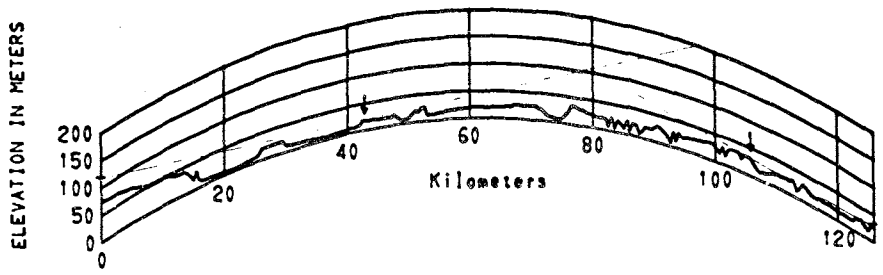


Figure 3.172 Paths 2316 2320 2341 2349

PATH 2245 ITAZUKE JAPAN - CHANGSAN JAPAN

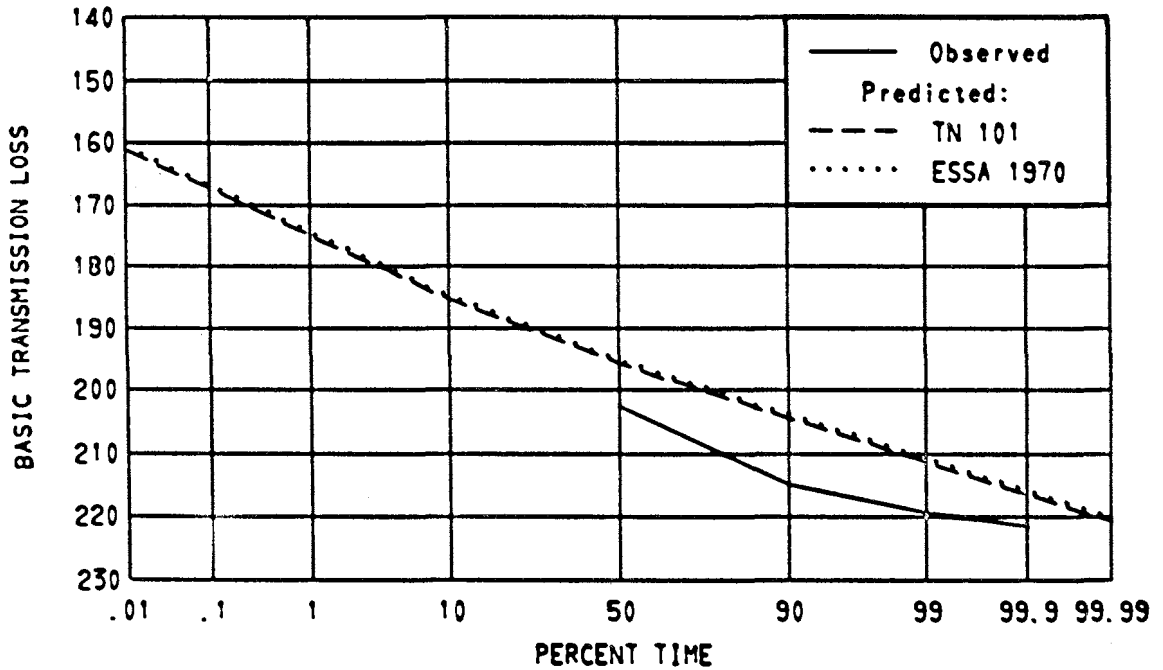
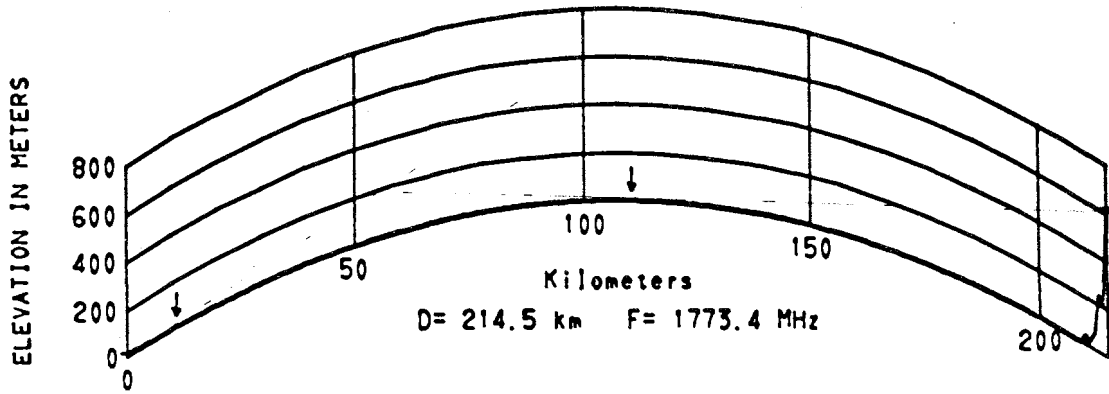


Figure 3.173 Path 2245

PATHS 2302 2303 2305 2307 KOKUBUNJI JAPAN - NIHONMATSU JAPAN

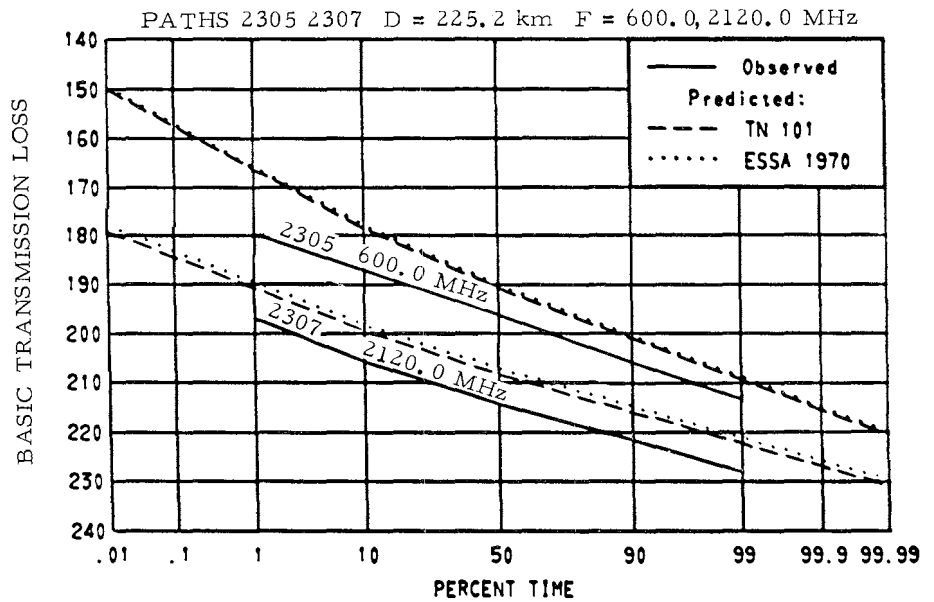
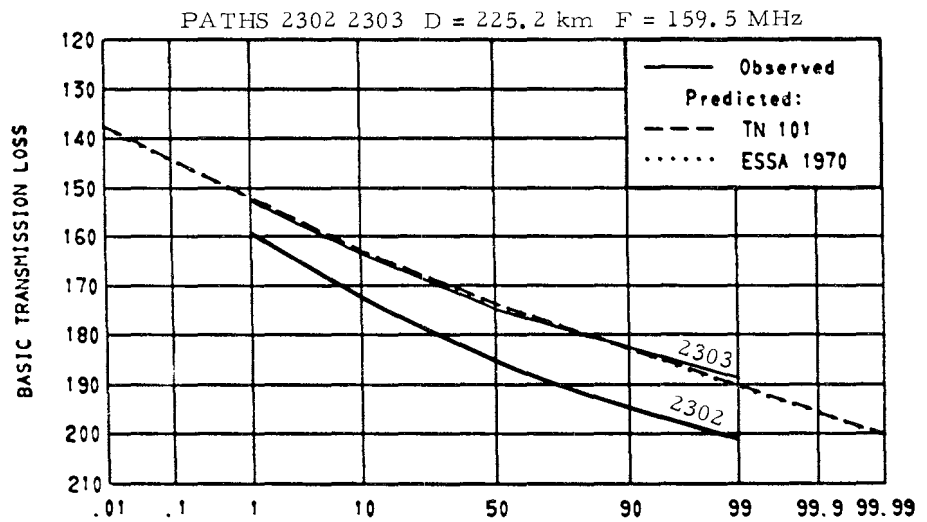
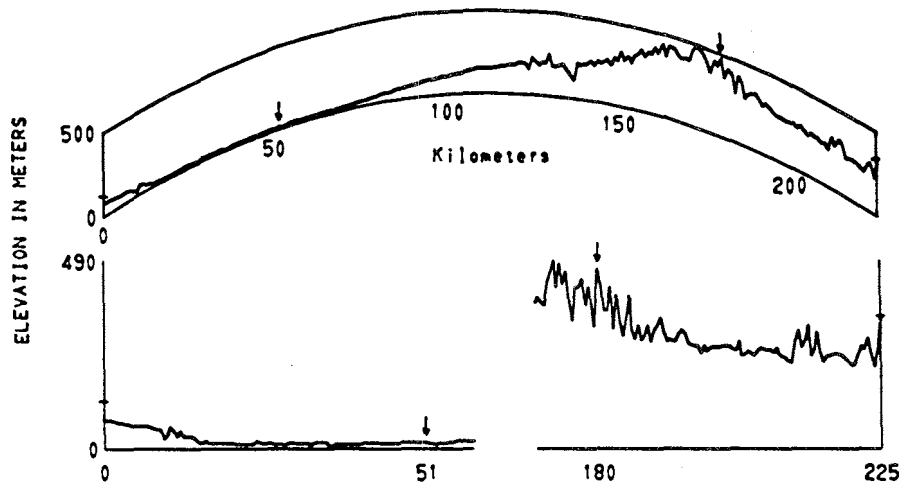


Figure 3.174 Paths 2302 2303 2305 2307

PATH 2246 SEBURIYAMA JAPAN - CHIRAN JAPAN

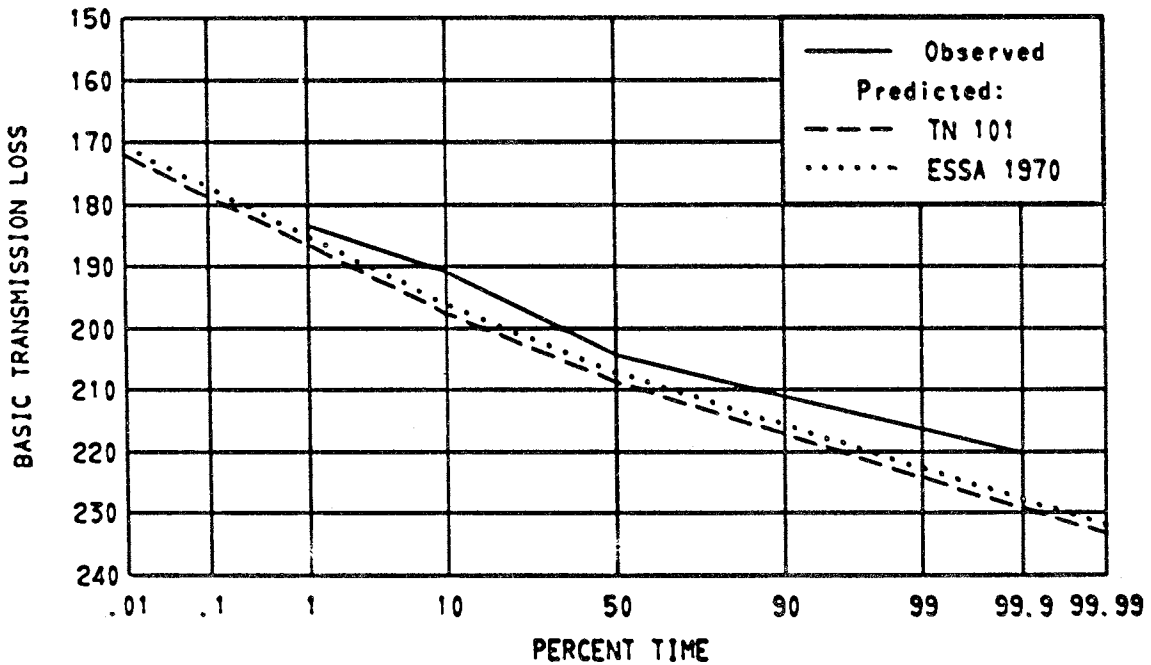
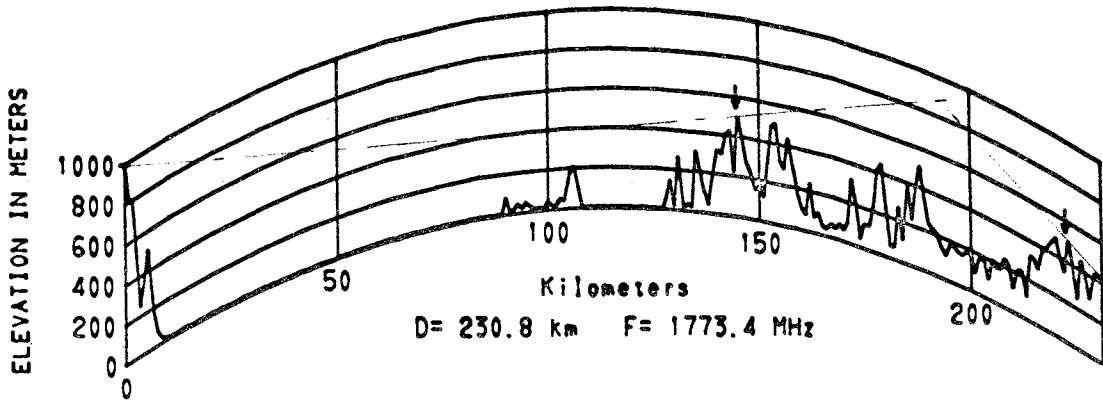


Figure 3.175 Path 2246

PATH 2234 CHITOSE JAPAN - MISAWA JAPAN

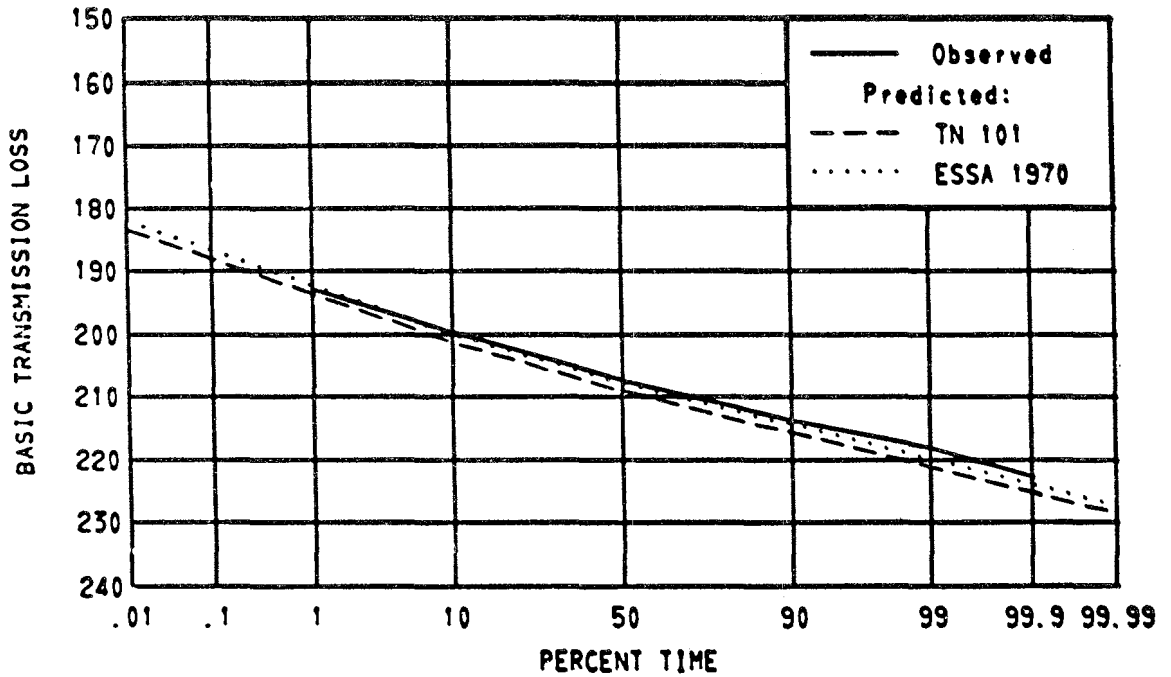
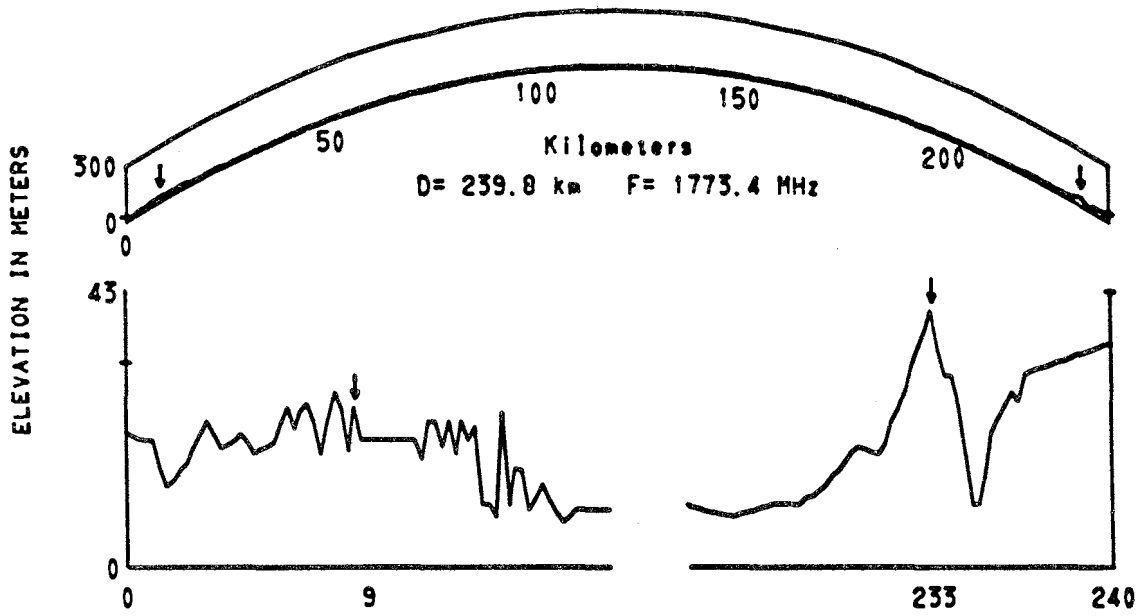


Figure 3.176 Path 2234

PATH 2235 MISAWA JAPAN - SENDAI JAPAN

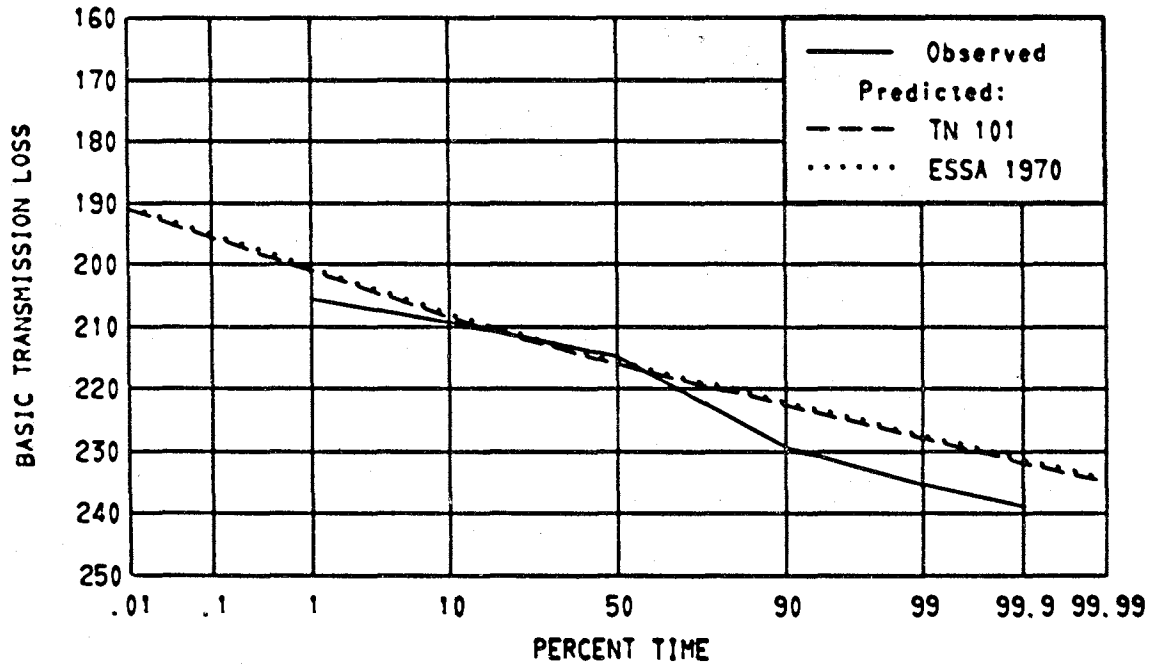
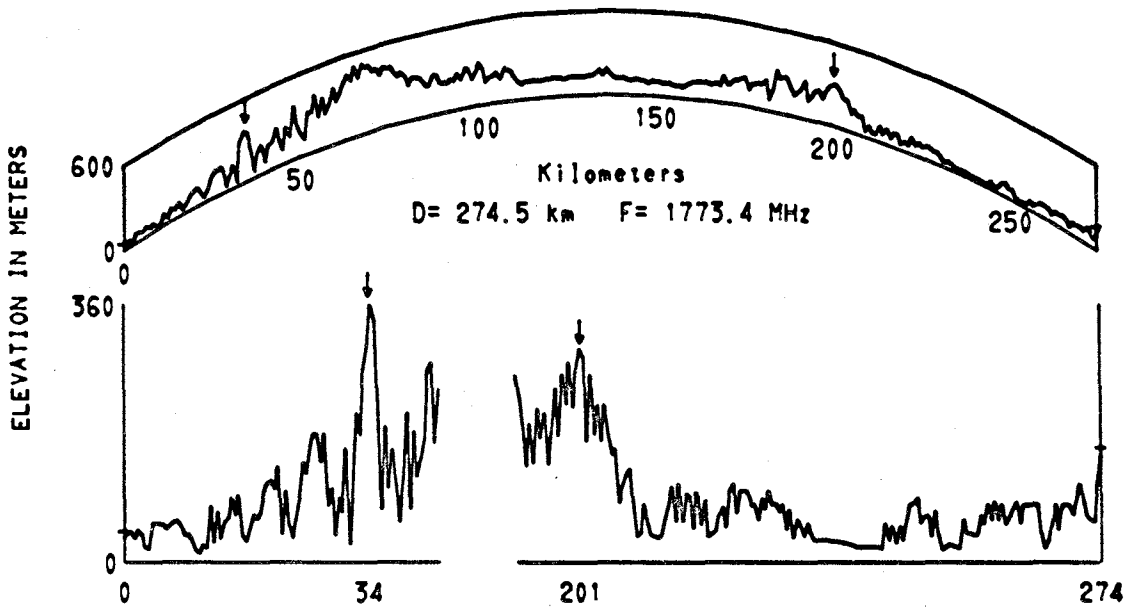


Figure 3.177 Path 2235

PATHS 2266 2267 TOKYO JAPAN - HACHIJO JAPAN

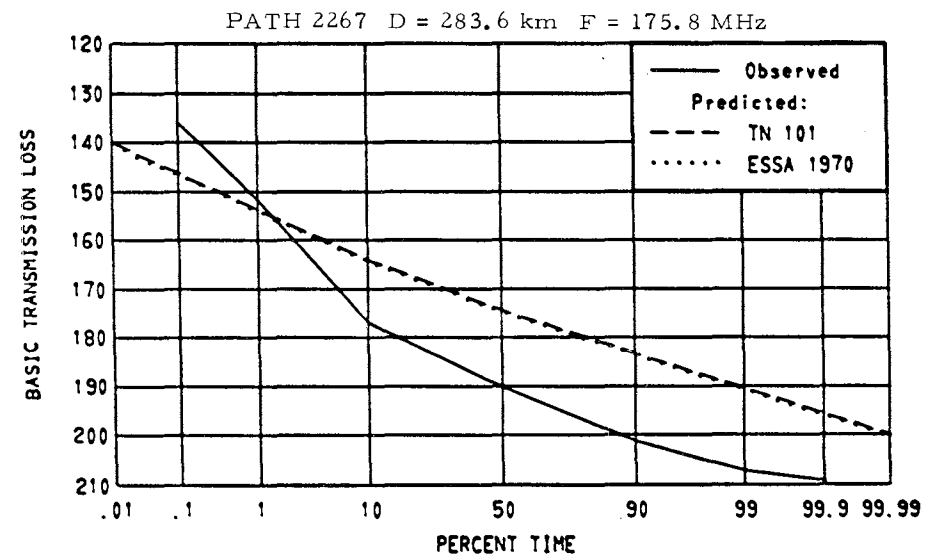
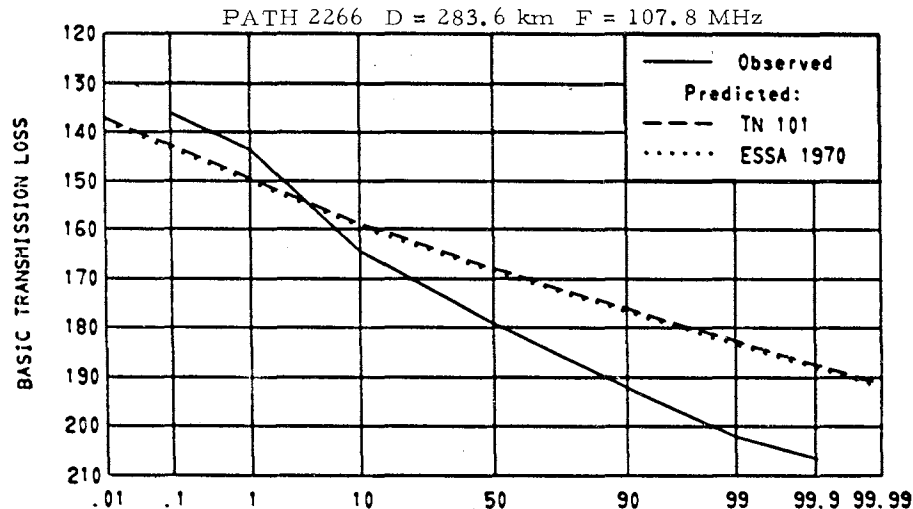
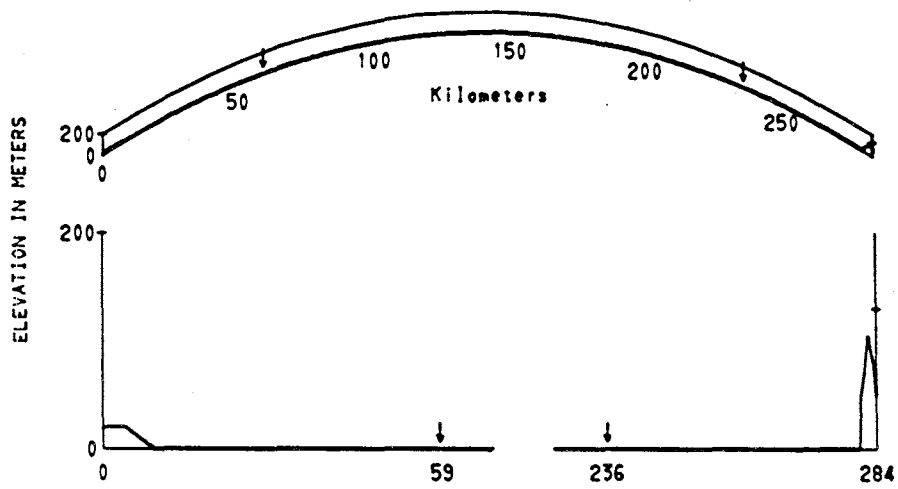


Figure 3.178 Paths 2266 2267

PATH 2233 WAKKANAI JAPAN - CHITOSE JAPAN

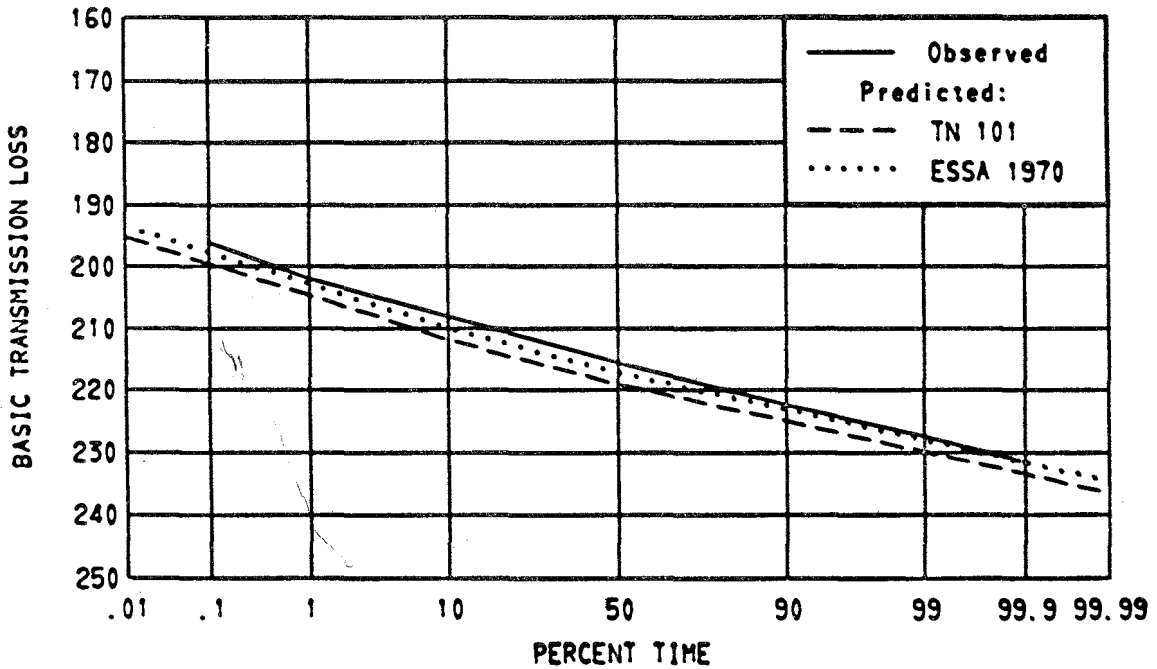
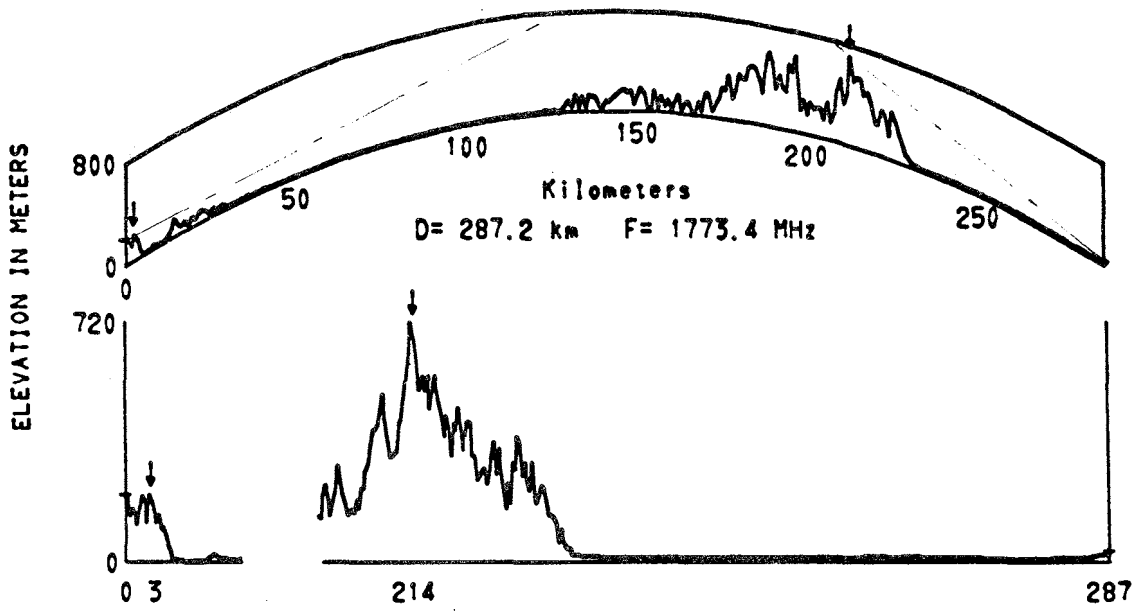


Figure 3.179 Path 2233

PATH 2241 ROKKO JAPAN - SOFU JAPAN

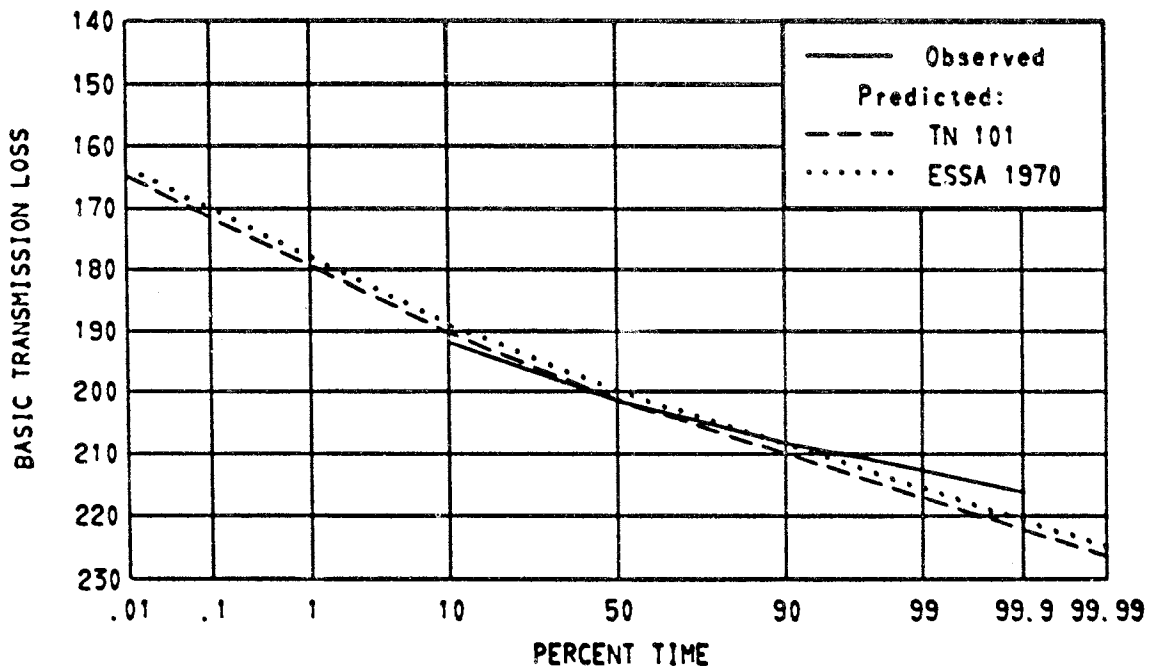
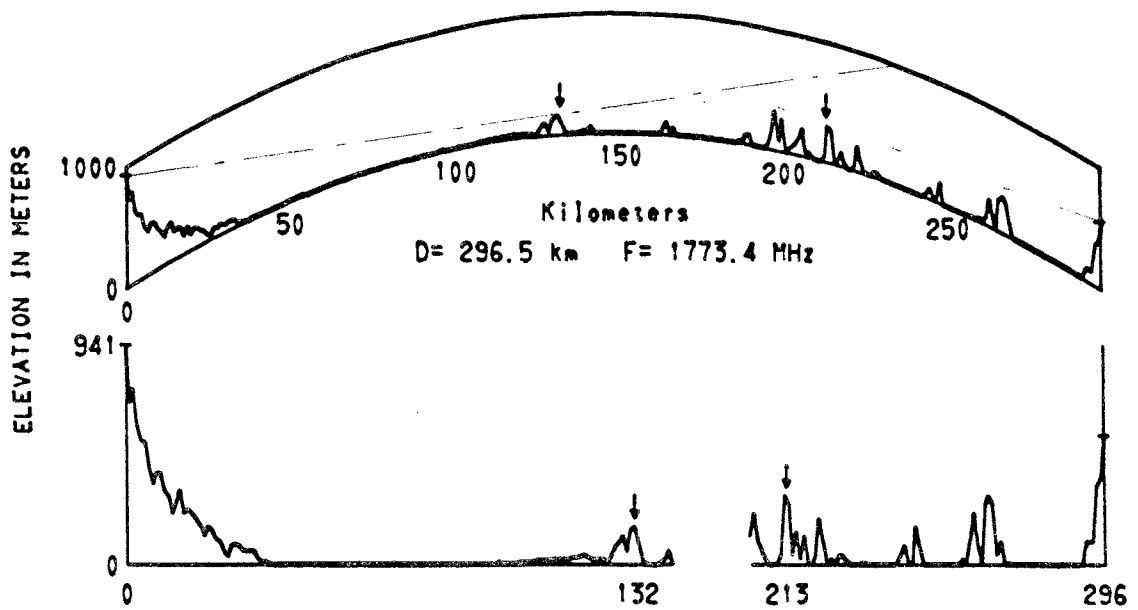
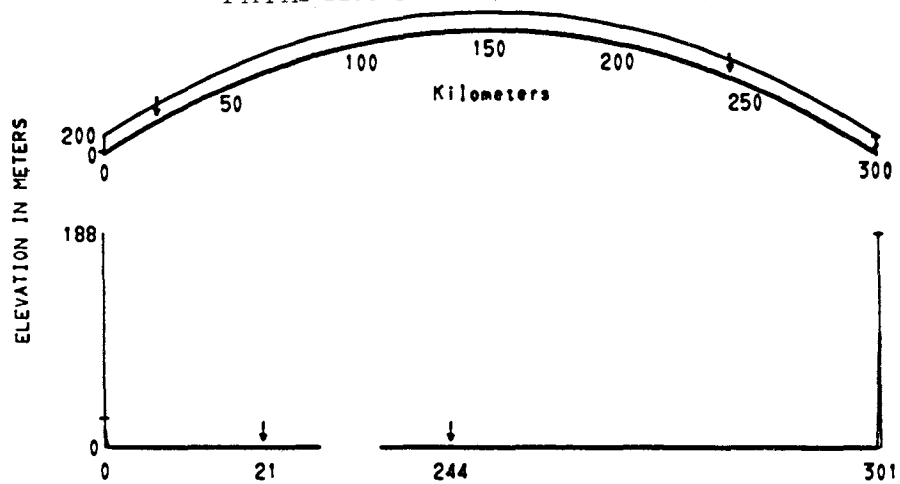
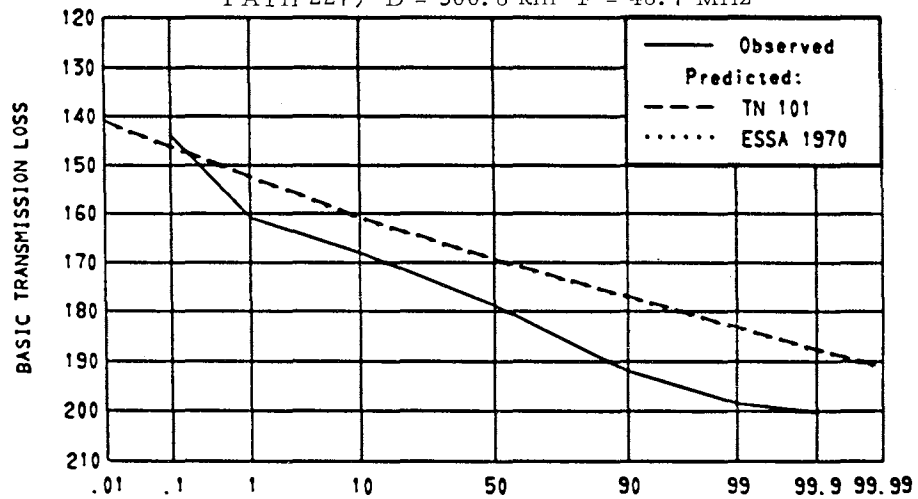


Figure 3.180 Path 2241

MIYAZAKI JAPAN - MUROTOMISAKI JAPAN
 PATHS 2268 TO 2270, 2279 TO 2281



PATH 2279 D = 300.8 km F = 48.7 MHz



PATH 2280 D = 300.8 km F = 1310.0 MHz

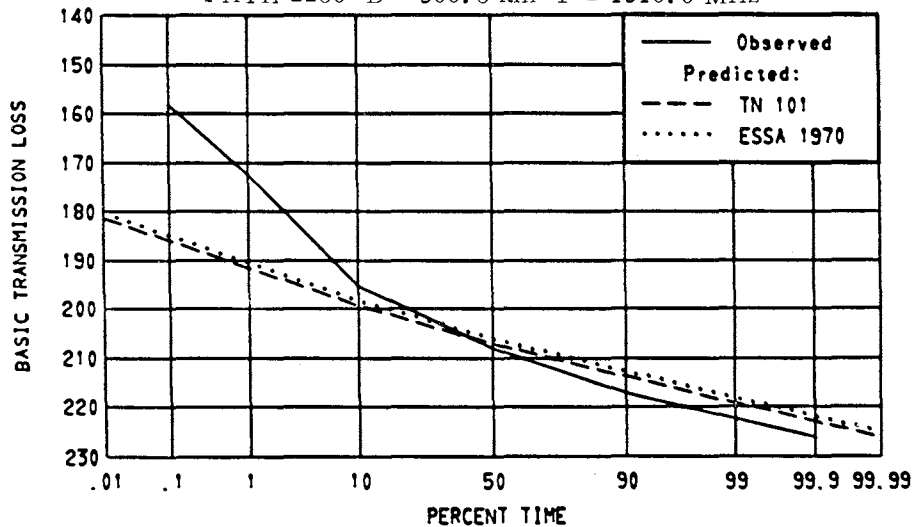


Figure 3.181 Paths 2279 2280

MIYAZAKI JAPAN - MUROTOMISAKI JAPAN

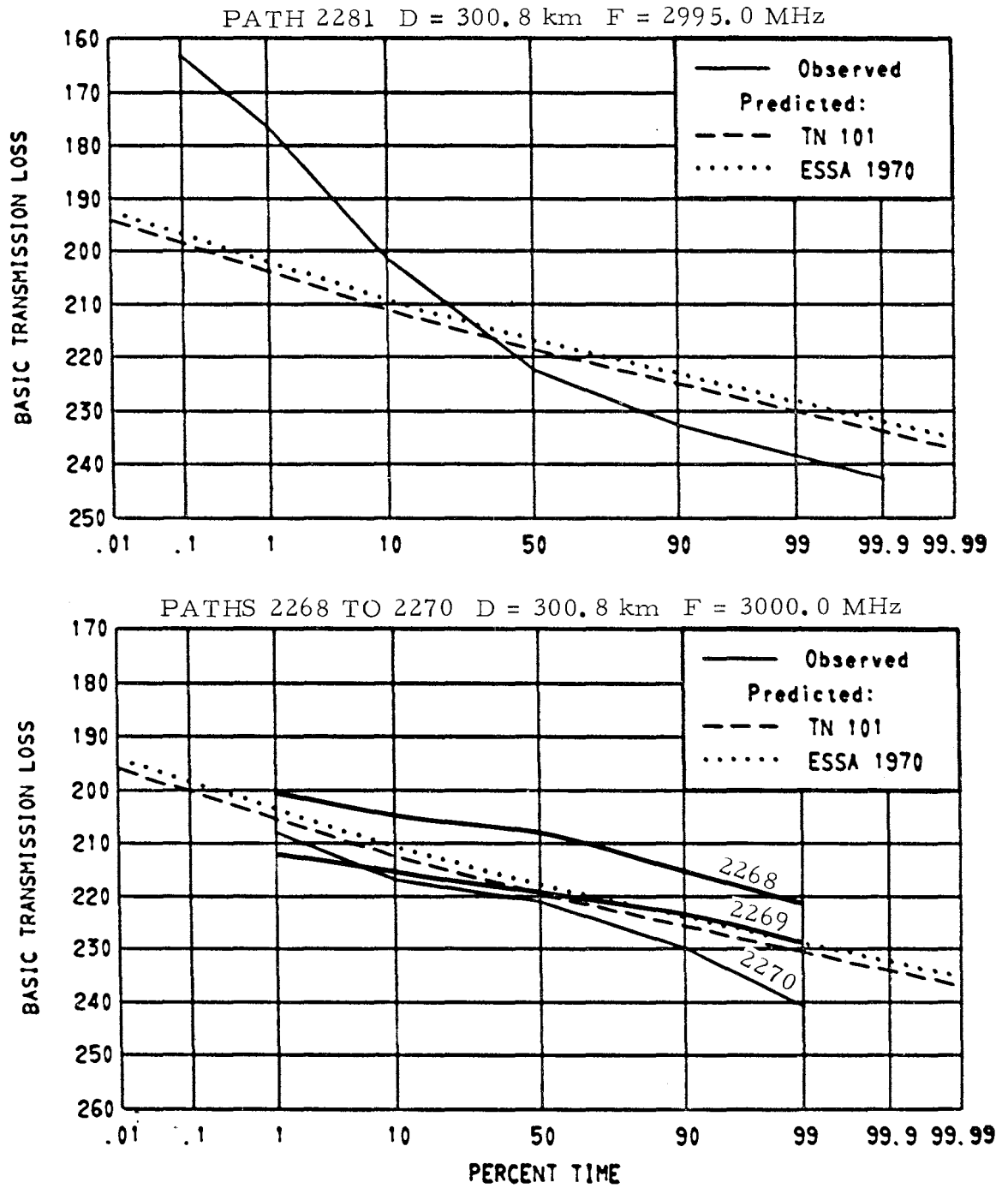


Figure 3.182 Paths 2268 to 2270, 2281

PATHS 2271 TO 2273 KOKUBUNJI JAPAN - SENDAI JAPAN

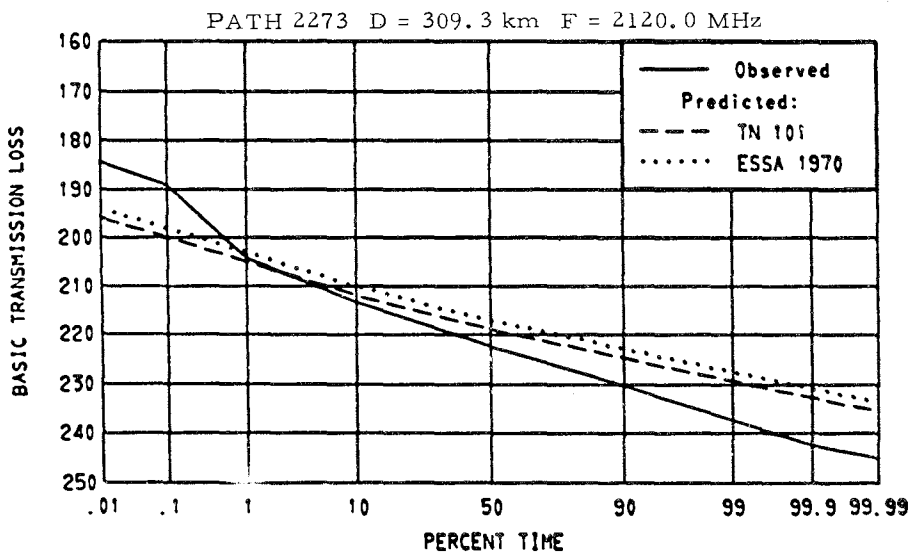
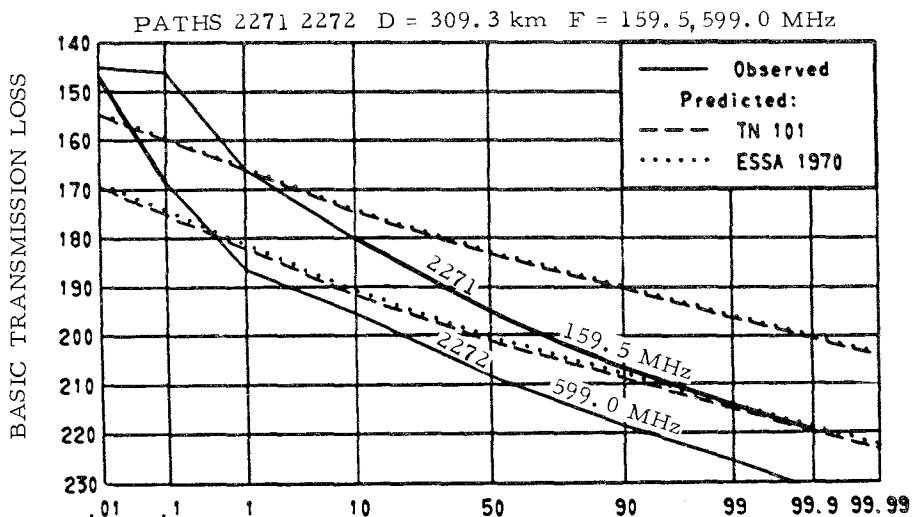
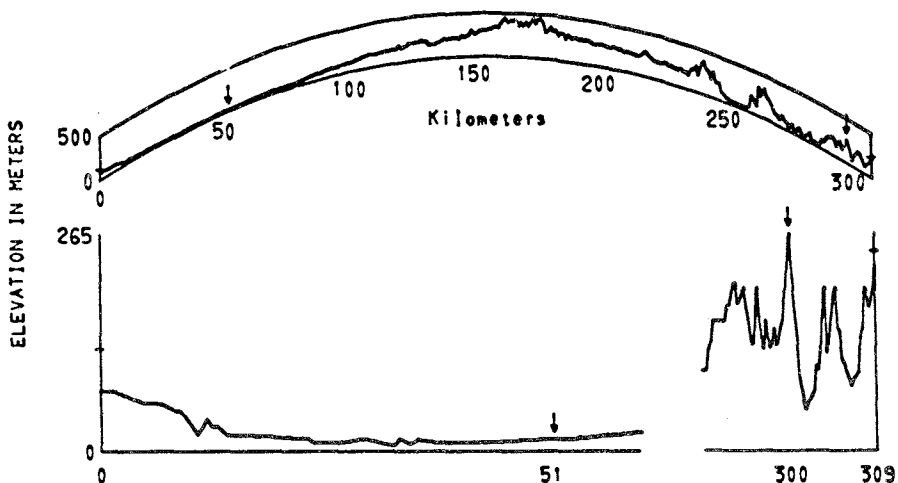


Figure 3.183 Paths 2271 to 2273

PATH 2236 SENDAI JAPAN - FUCHU JAPAN

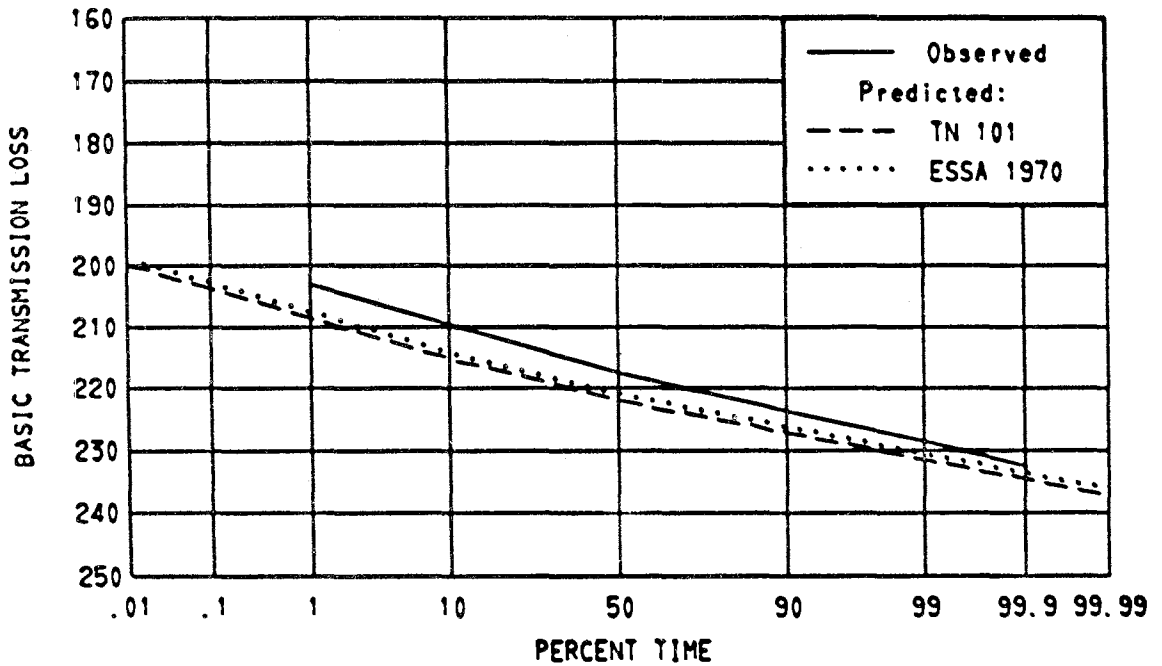
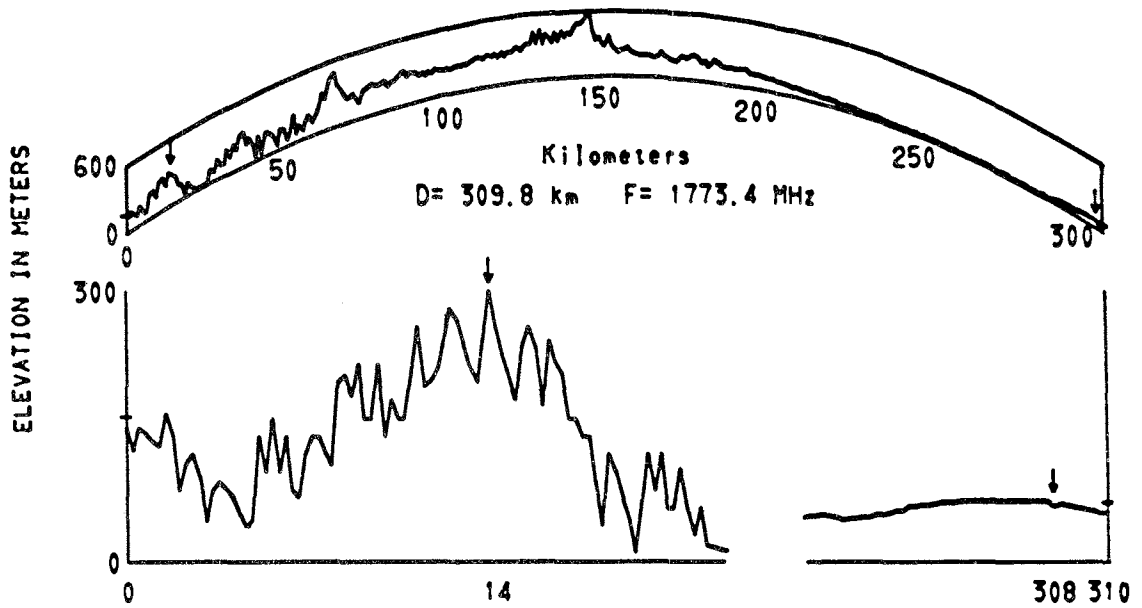
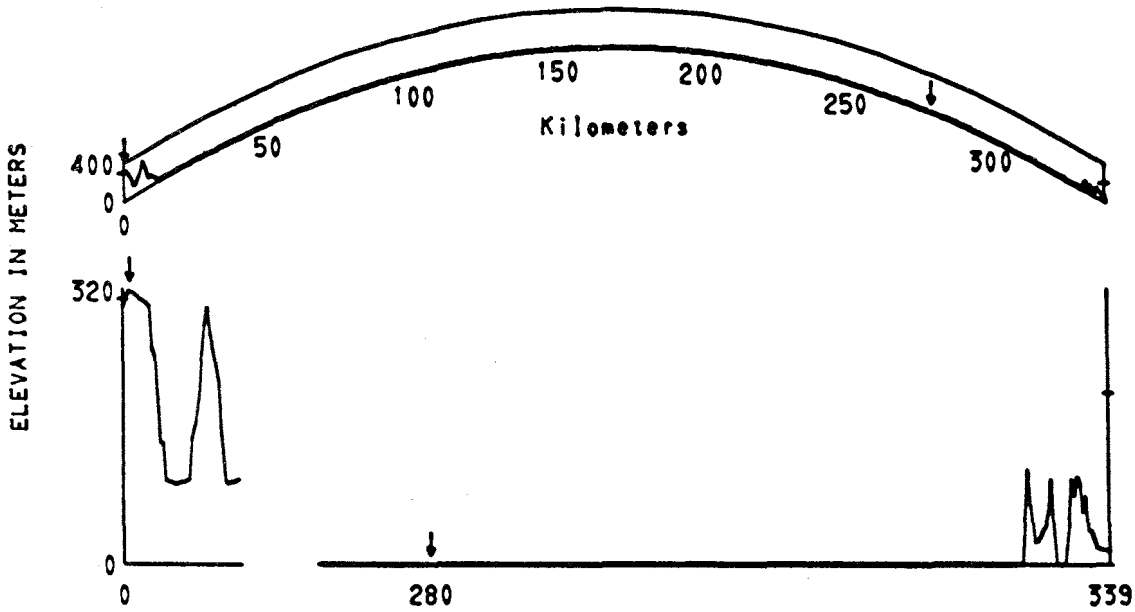


Figure 3.184 Path 2236

PATHS 2289 TO 2291 ASATO JAPAN - IBUSUKI JAPAN



PATHS 2289 TO 2291 D = 339.2 km F = 48.7, 209.0 MHz

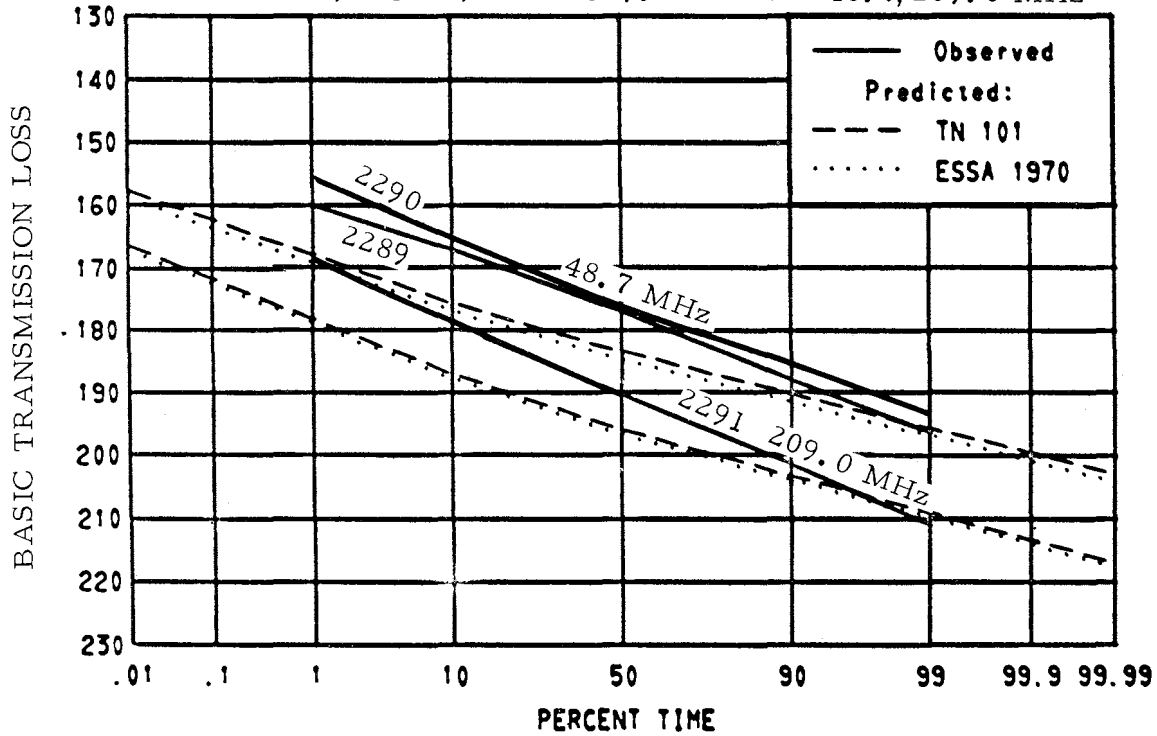


Figure 3.185 Paths 2289 to 2291

PATHS 2300 2301 2304 2306 KOKUBUNJI JAPAN - FURUKAWA JAPAN

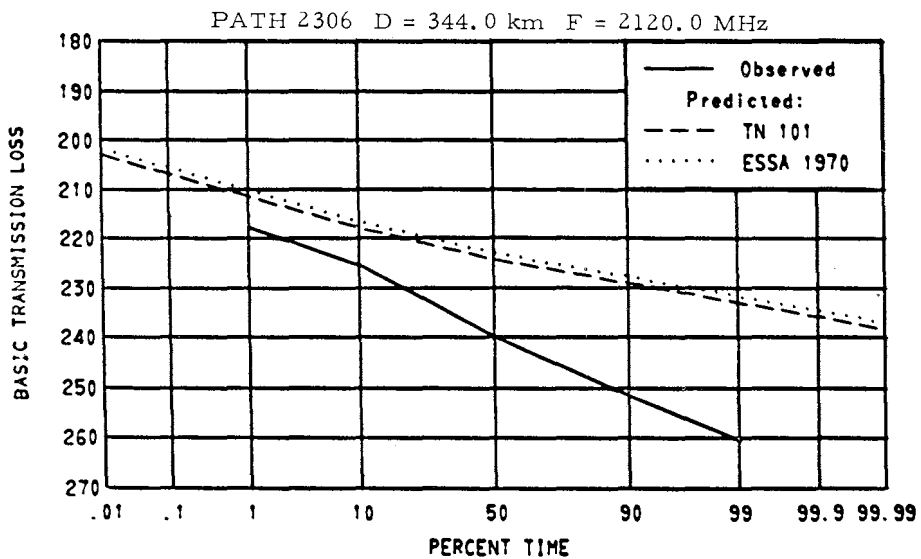
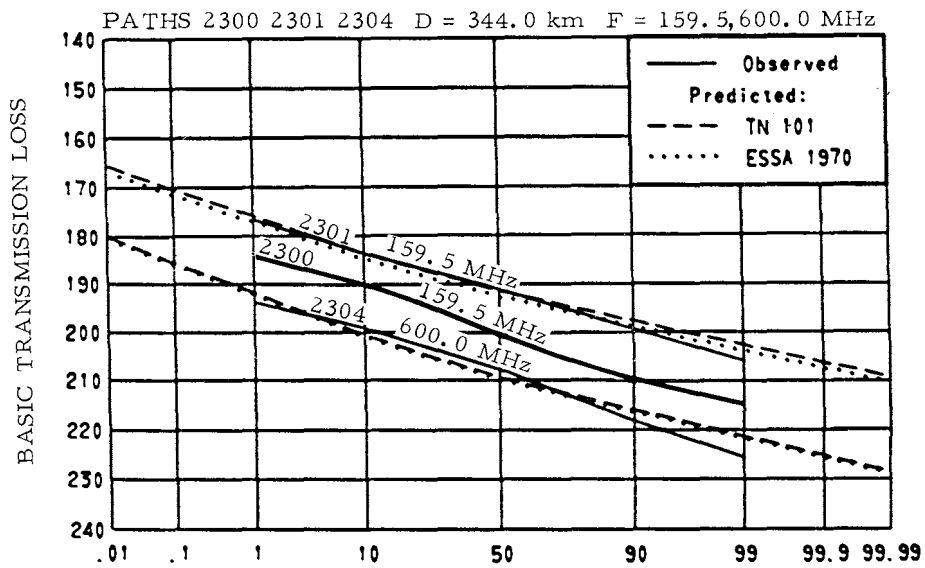
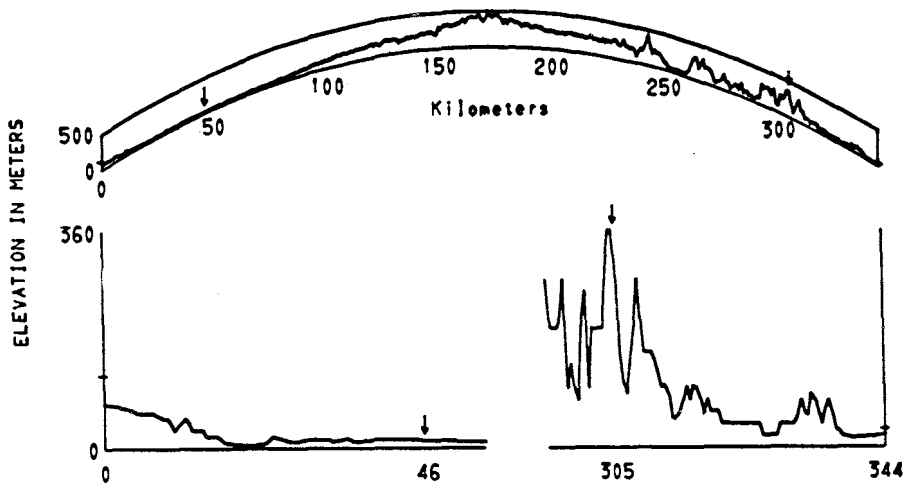


Figure 3.186 Paths 2300 2301 2304 2306

PATH 2240 HAKONE JAPAN - ROKKO JAPAN

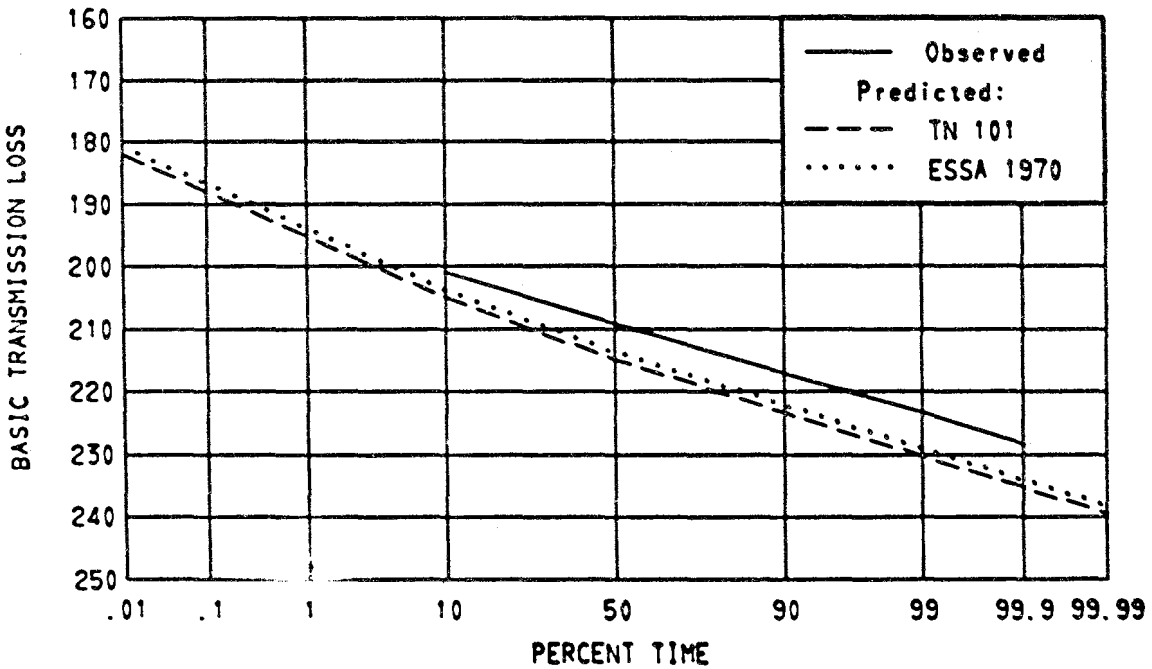
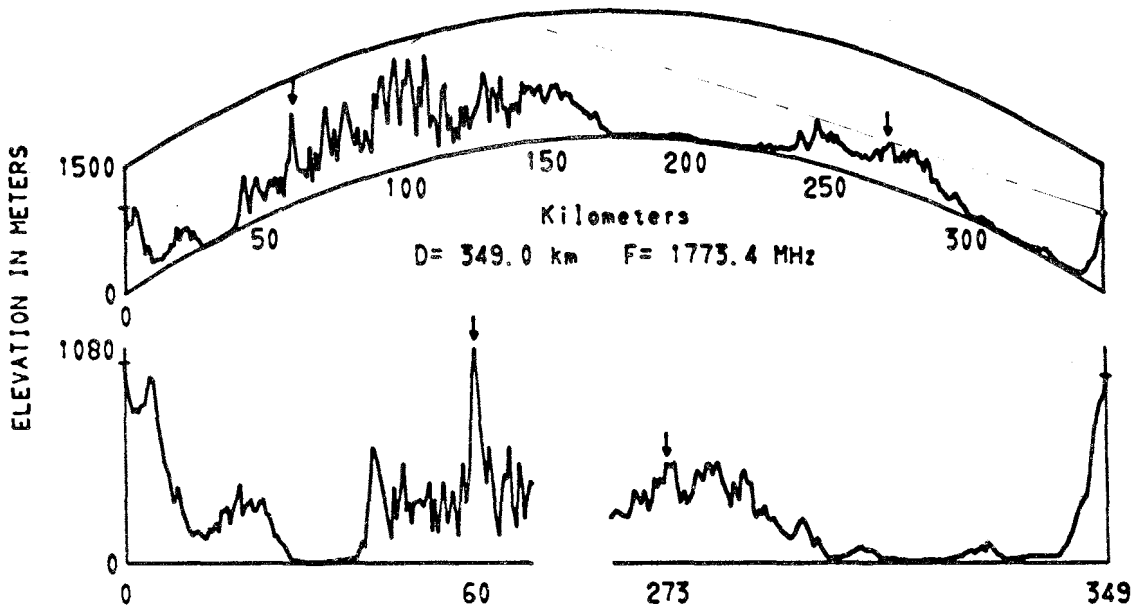


Figure 3.187 Path 2240

PATH 2310 KOKUBUNJI JAPAN - MT IKOMA JAPAN

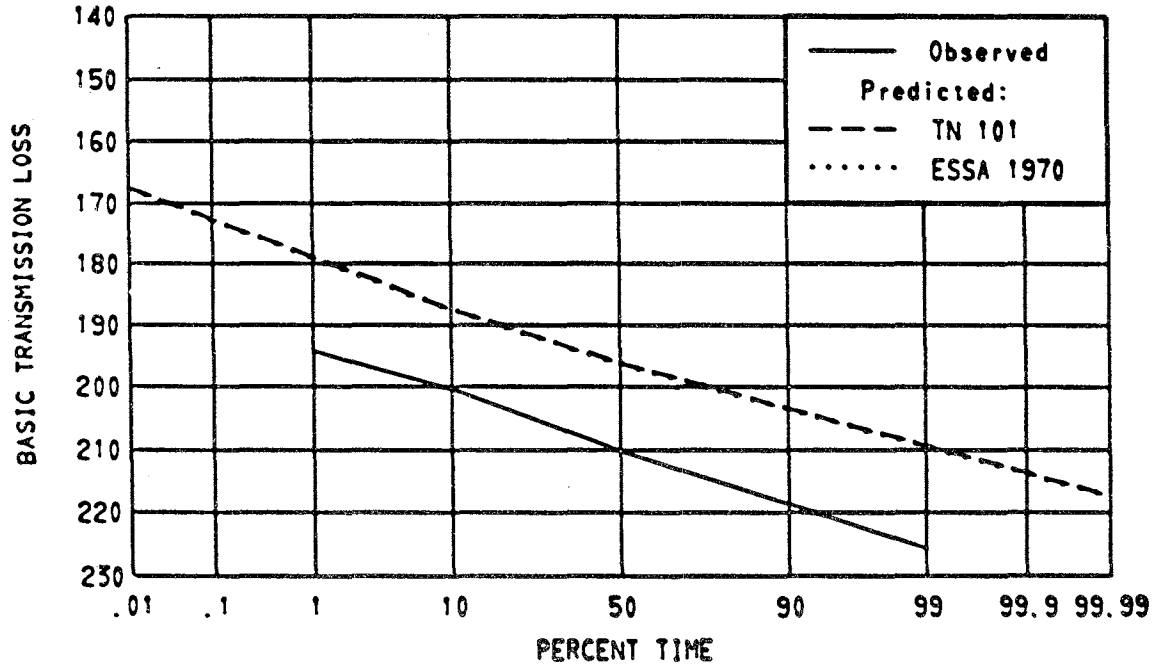
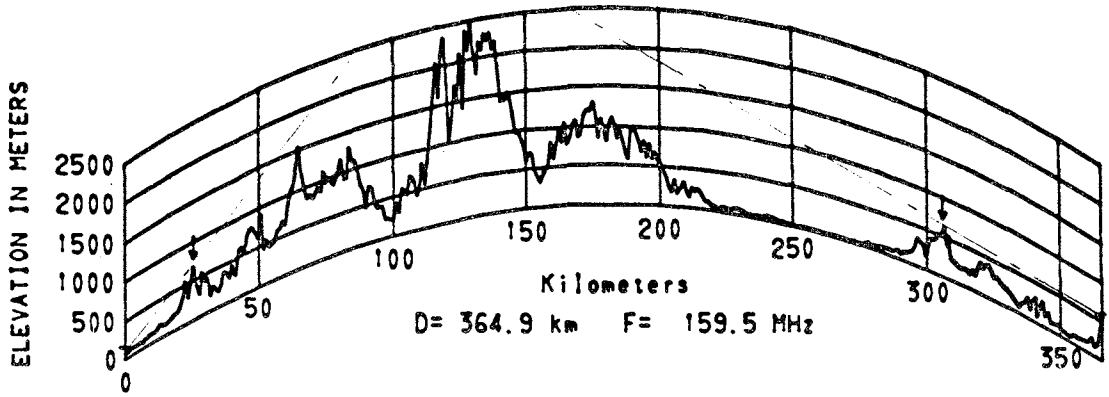


Figure 3.188 Path 2310

PATHS 2295 2296 MIYAZAKI JAPAN - INAMI JAPAN

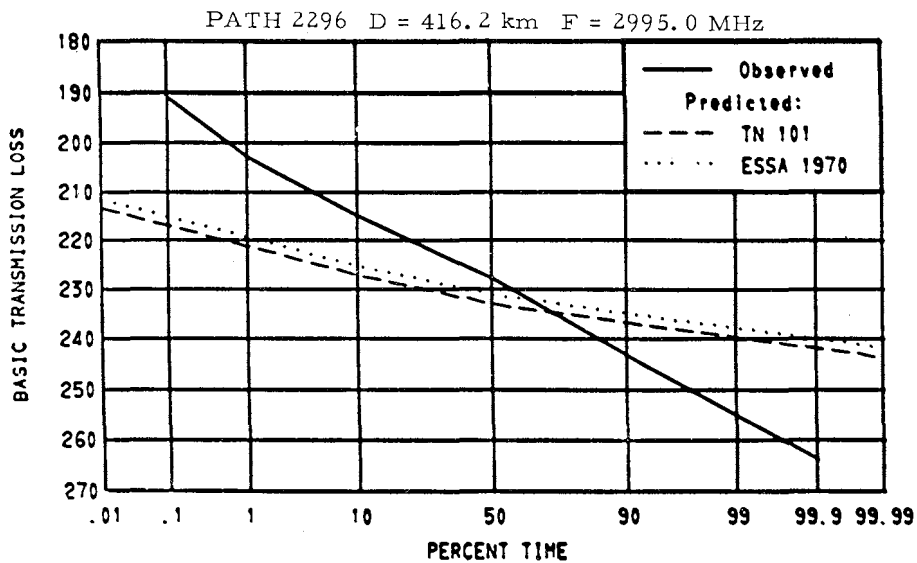
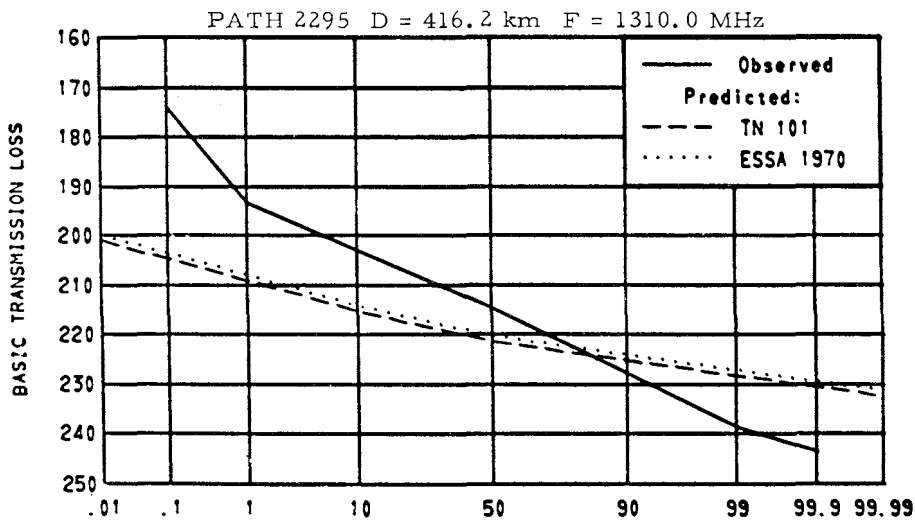
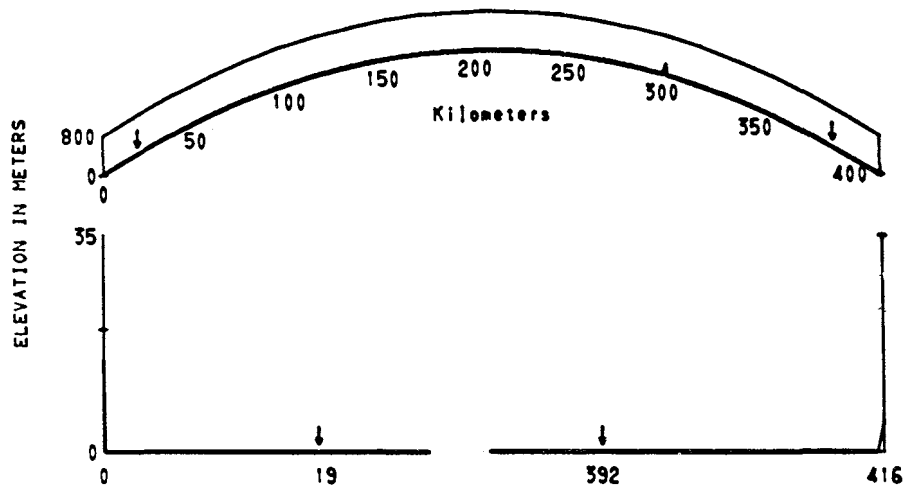


Figure 3.189 Paths 2295 2296

PATH 2297 KAZASHIYAMA JAPAN - OSAKA JAPAN

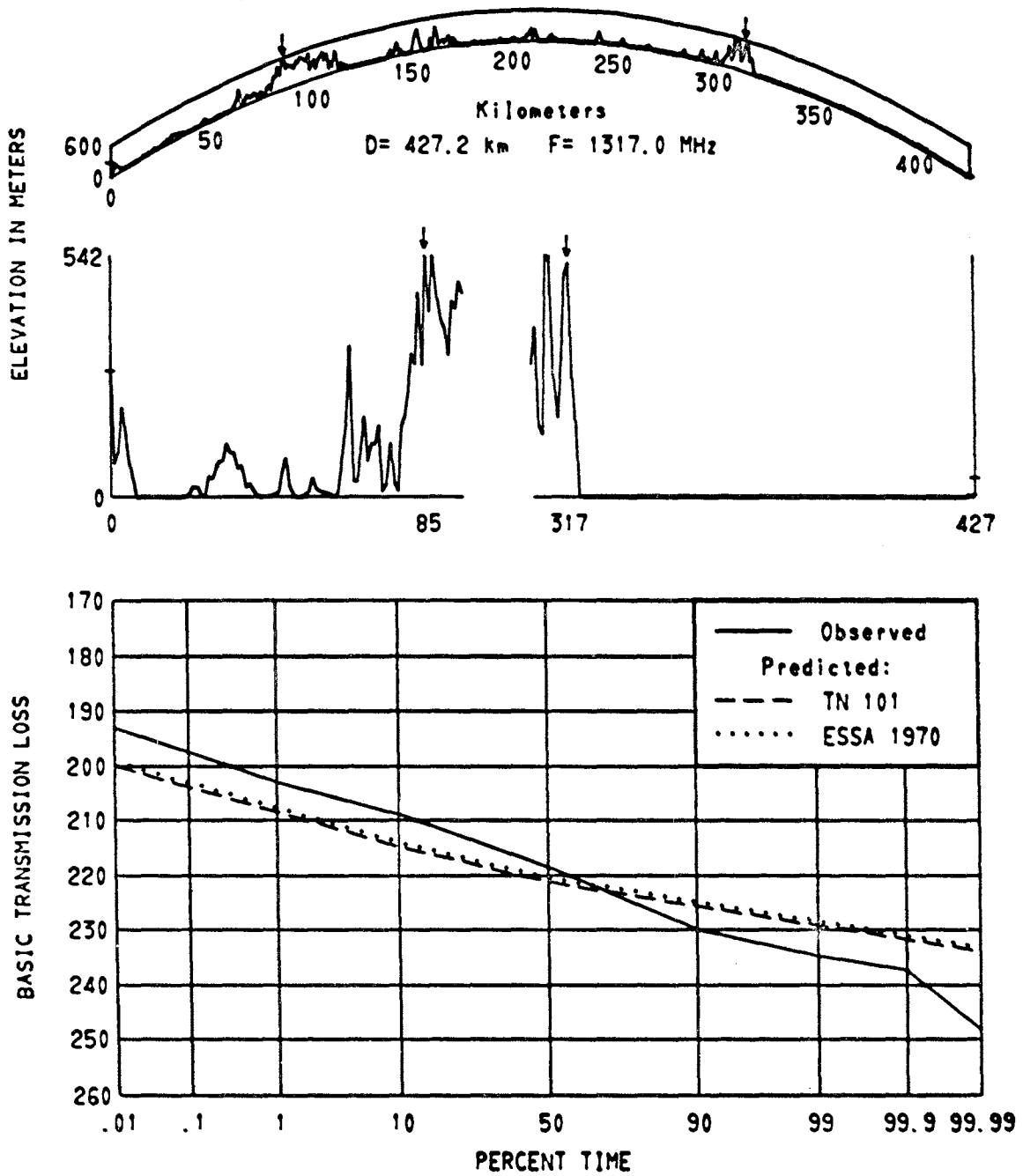
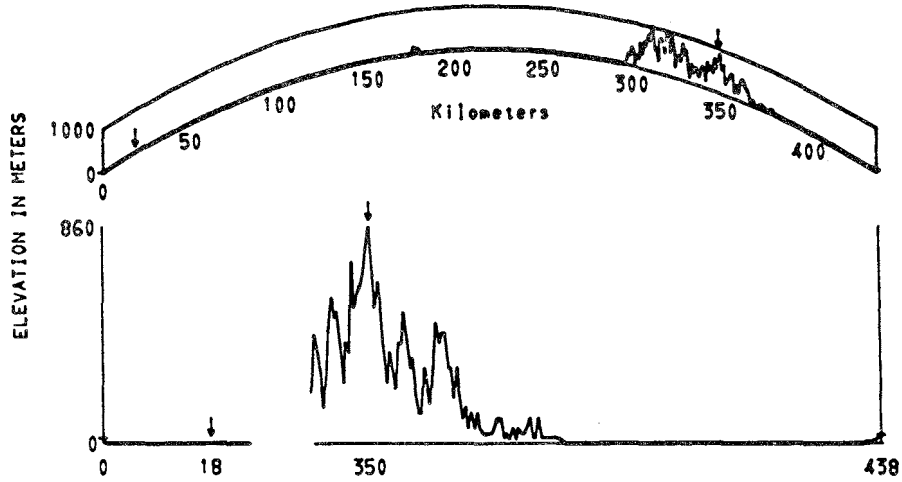
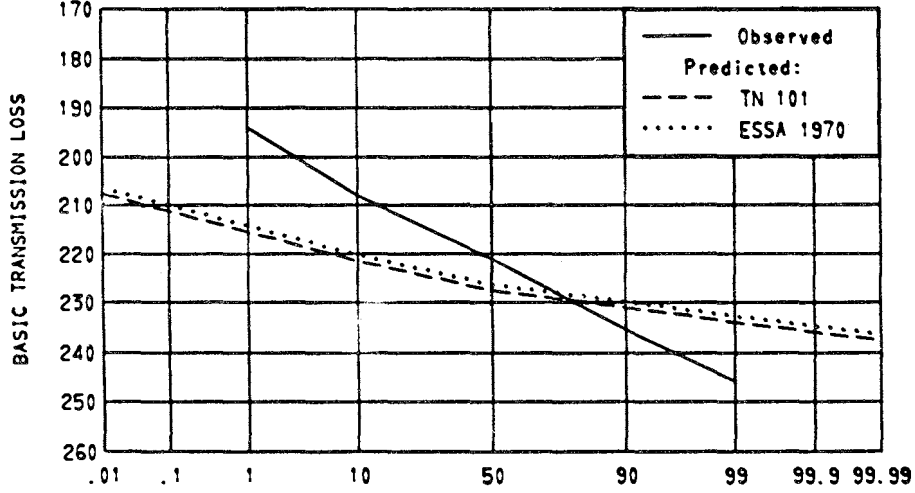


Figure 3.190 Path 2297

PATHS 2282 2283 MIYAZAKI JAPAN - WAKAYAMA JAPAN



PATH 2282 D = 438.1 km F = 1310.0 MHz



PATH 2283 D = 438.1 km F = 2995.0 MHz

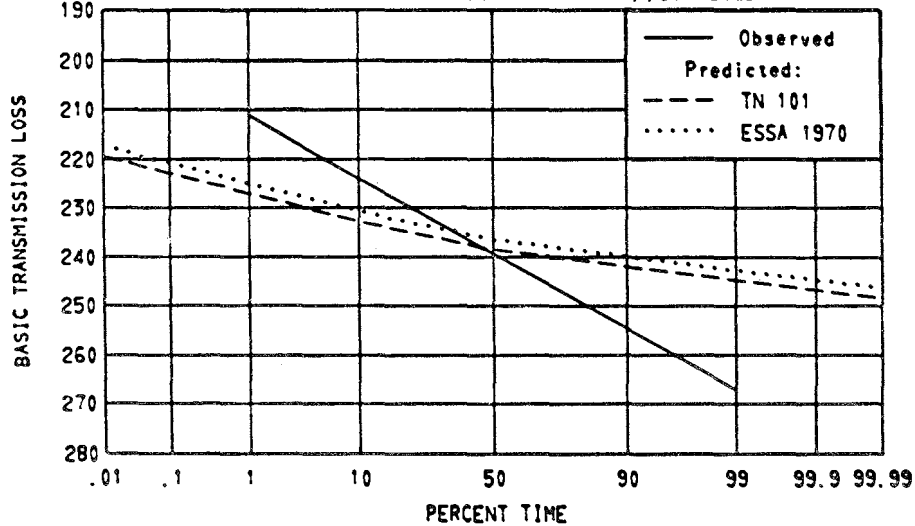


Figure 3.191 Paths 2282 2283

PATH 2247 CHIRAN JAPAN - YAETAKE JAPAN

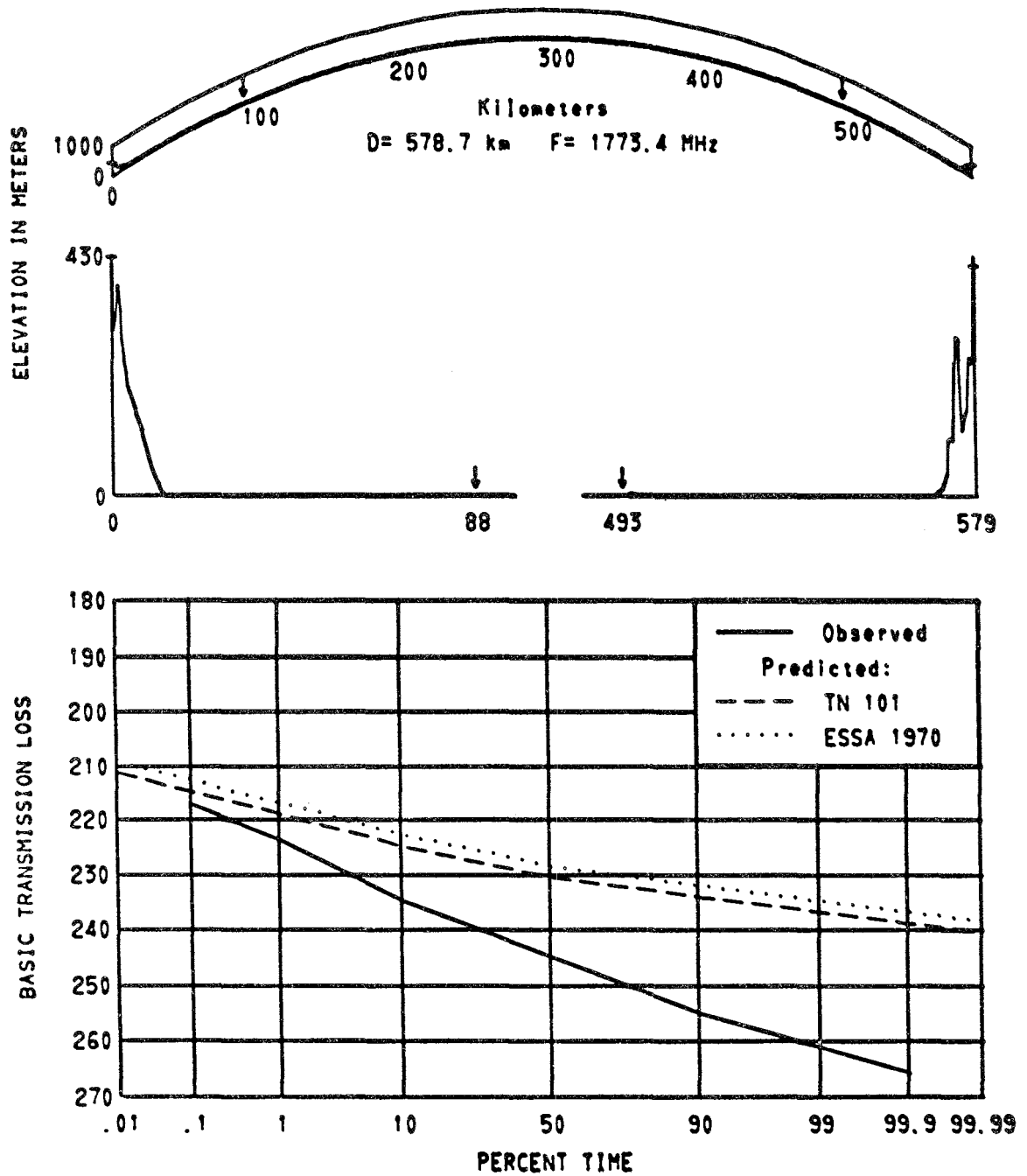
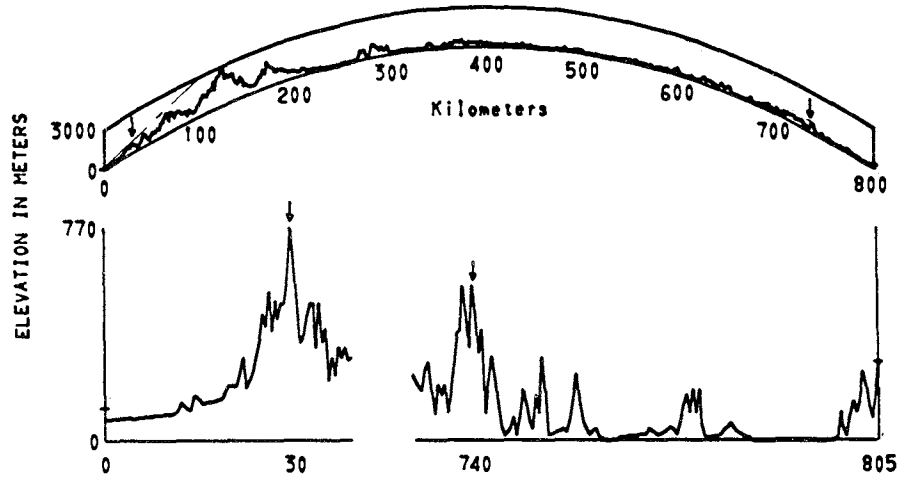
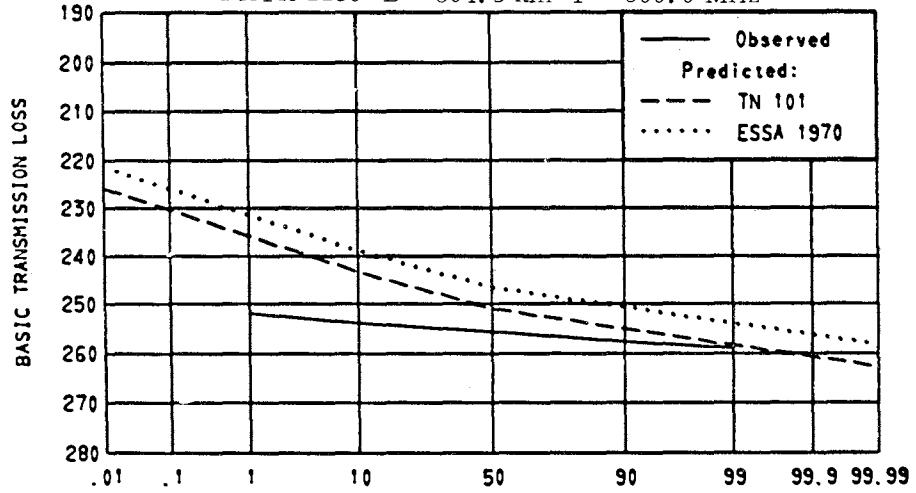


Figure 3.192 Path 2247

PATHS 2230 2231 KOKUBUNJI JAPAN - MT KAZASI JAPAN



PATH 2230 D = 804.5 km F = 600.0 MHz



PATH 2231 D = 804.5 km F = 2120.0 MHz

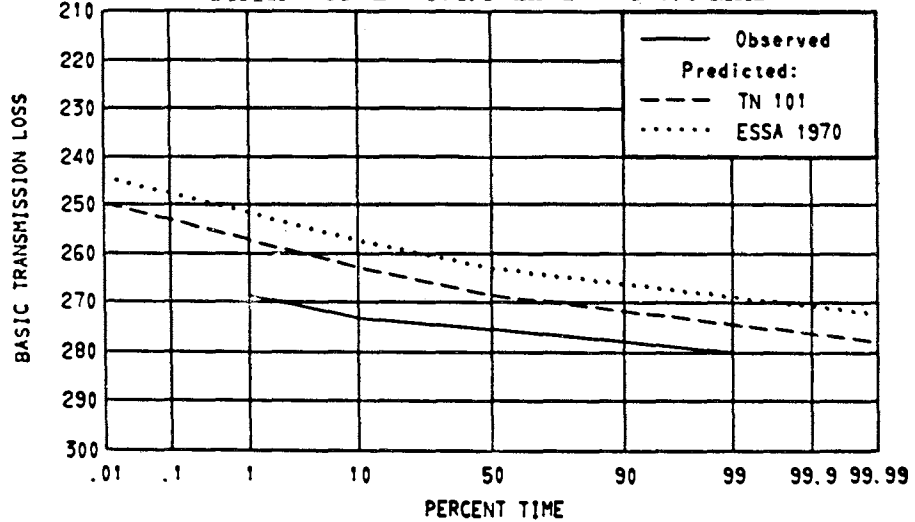
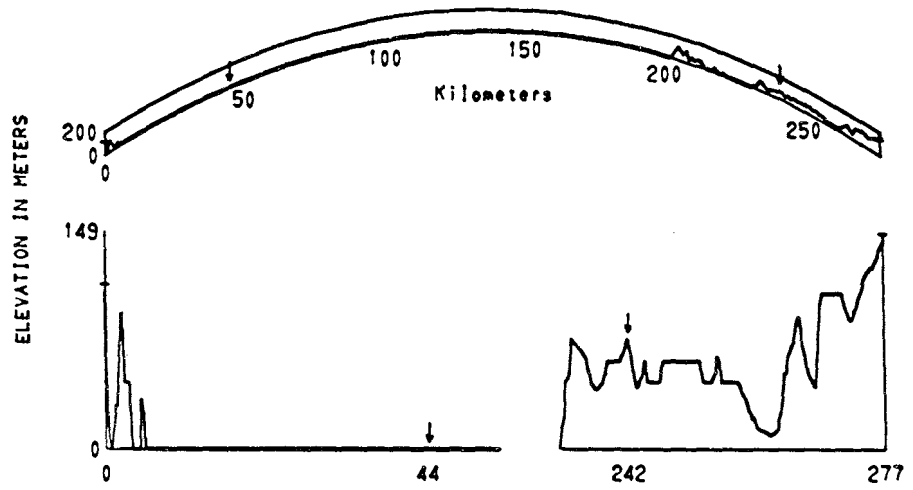
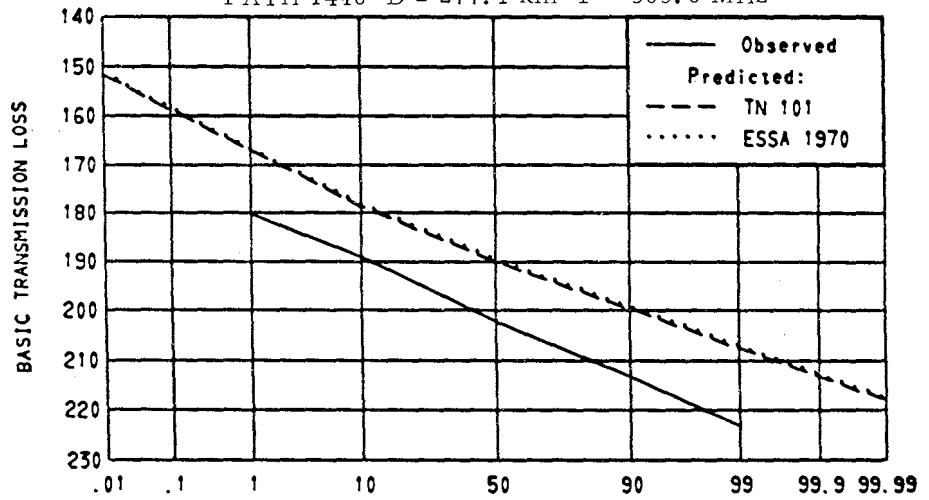


Figure 3.193 Paths 2230 2231

PATHS 1440 1441 ST ANTHONY CAN - GANDER CAN



PATH 1440 D = 277.1 km F = 505.0 MHz



PATH 1441 D = 277.1 km F = 4090.0 MHz

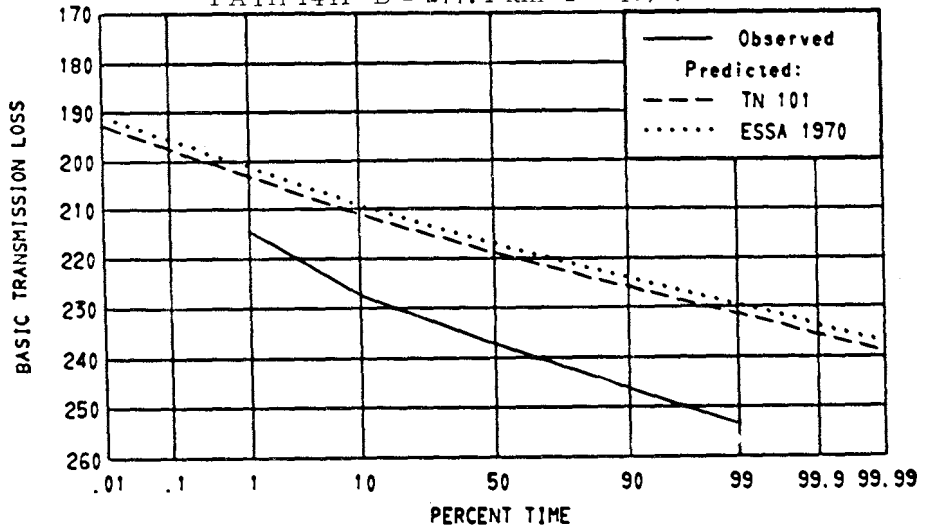


Figure 3.194 Paths 1440 1441

PATH 1442 ST ANTHONY CAN - HARBOUR MAIN CAN

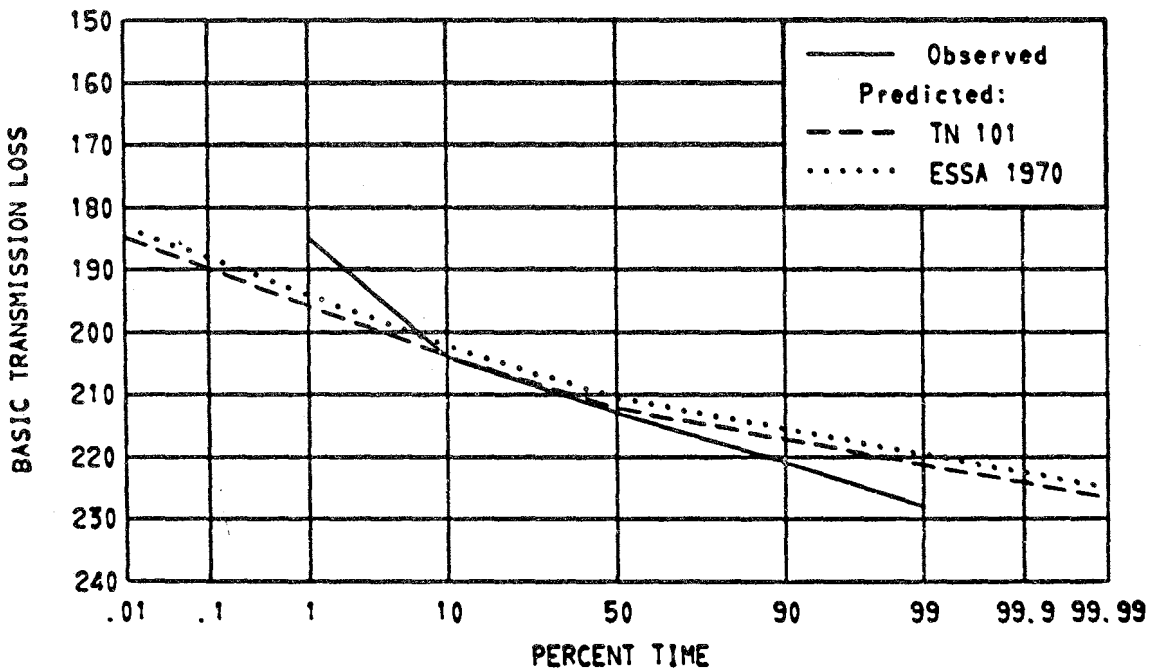
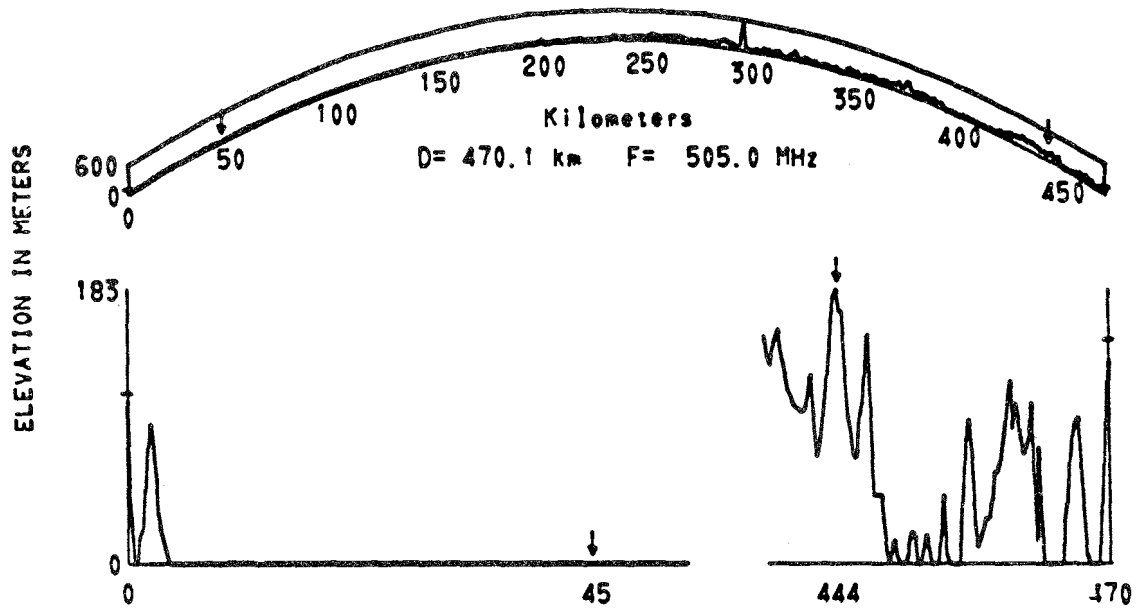


Figure 3.195 Path 1442

PATH 1437 NORTH BAY CAN - SHIRLEY BAY CAN

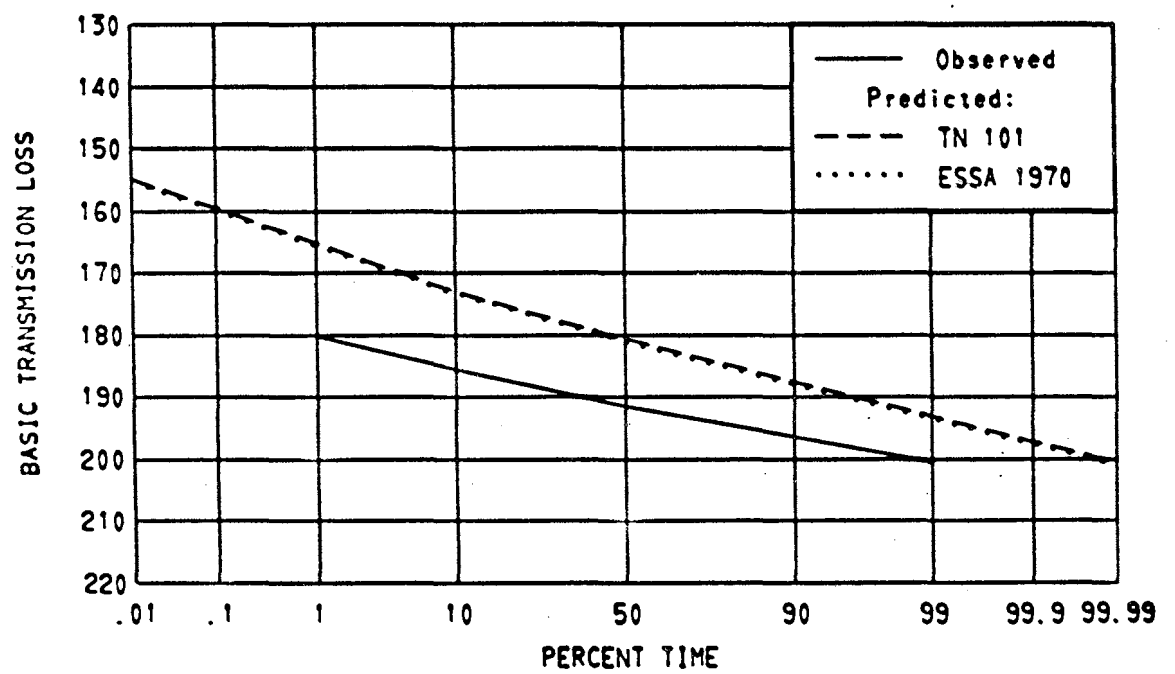
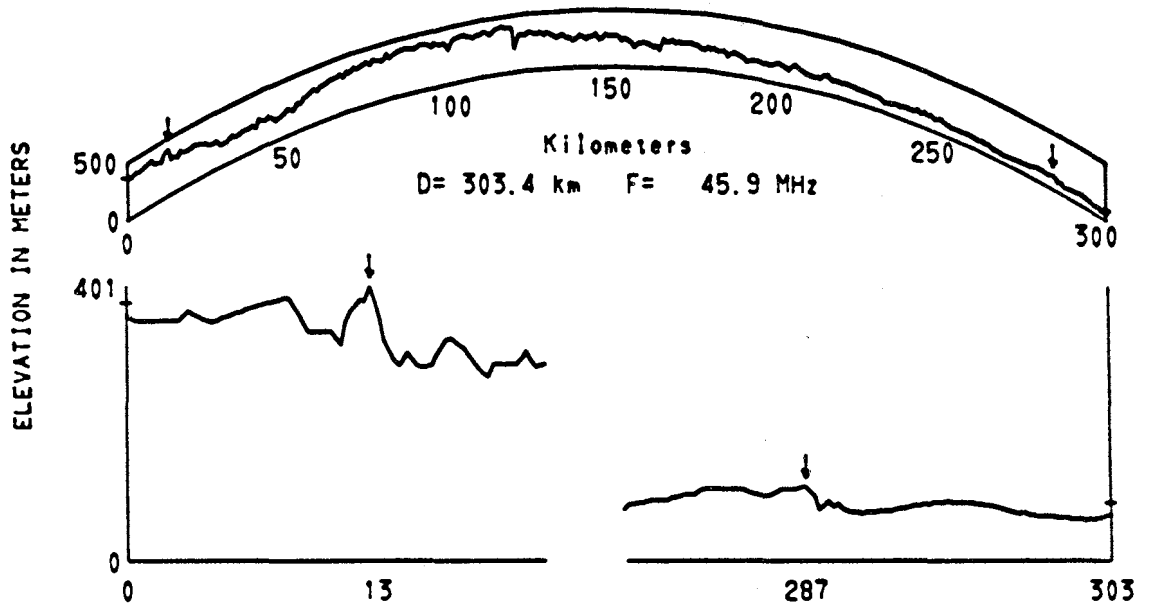


Figure 3.196 Path 1437

PATHS 1438 1439 OTTAWA CAN - TORONTO CAN

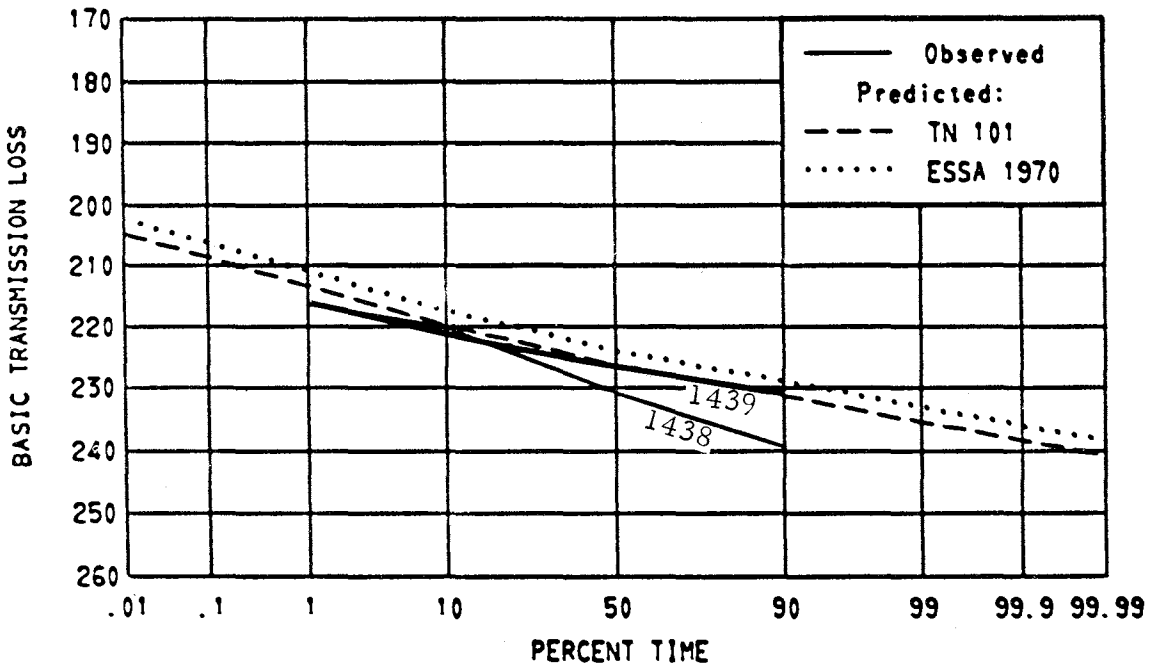
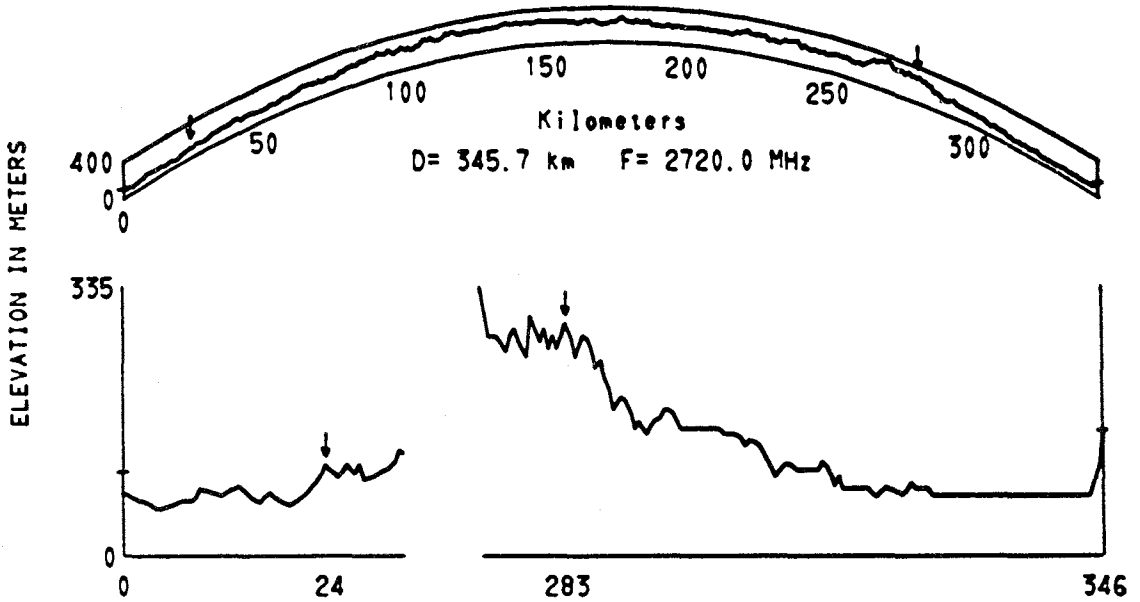


Figure 3.197 Paths 1438 1439

PATHS 2636 2637 LANNION FR - VILLEDIEU FR

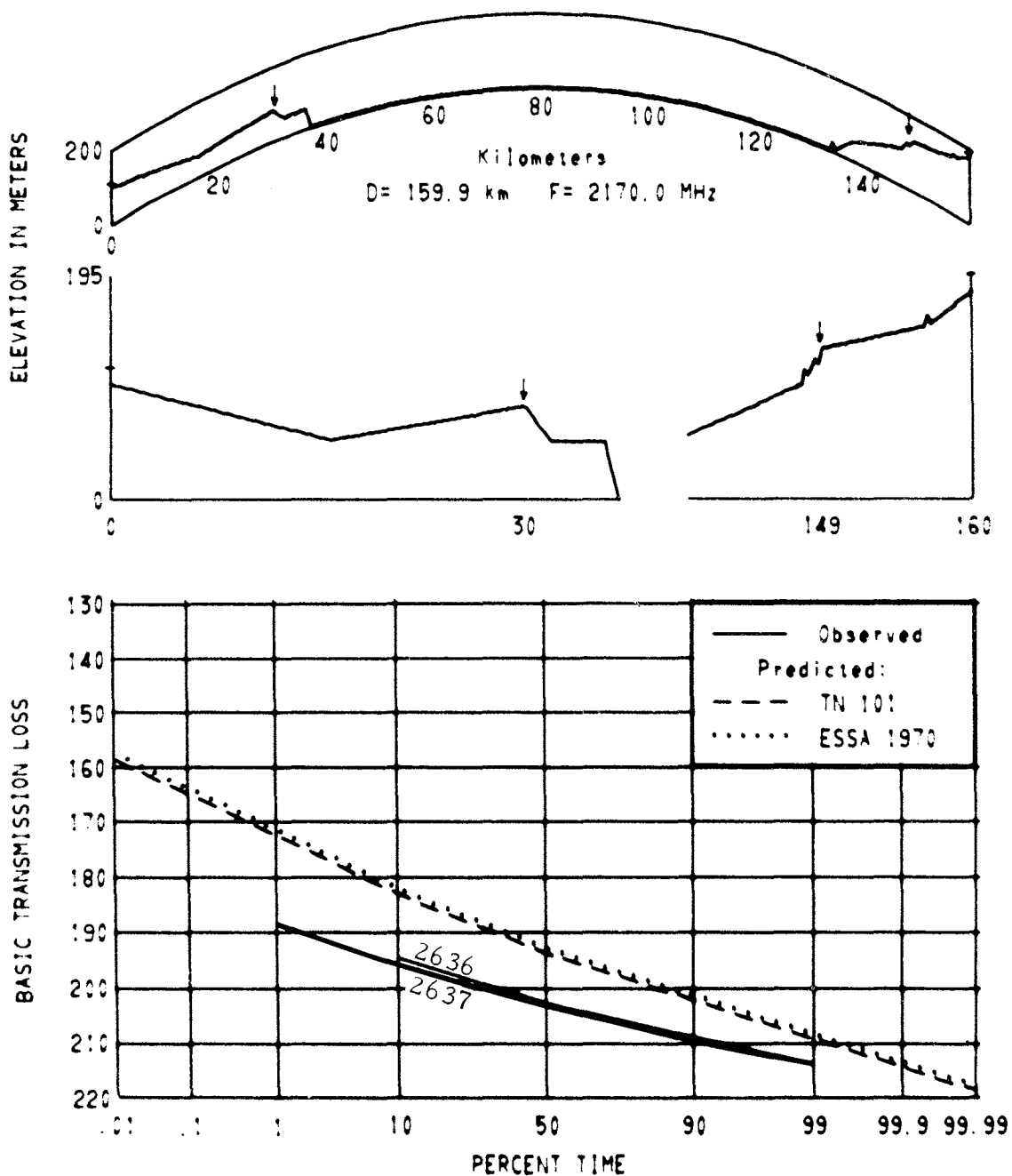


Figure 3.198 Paths 2636 2637

PATHS 2632 TO 2635 LANNION FR - CONCHES FR

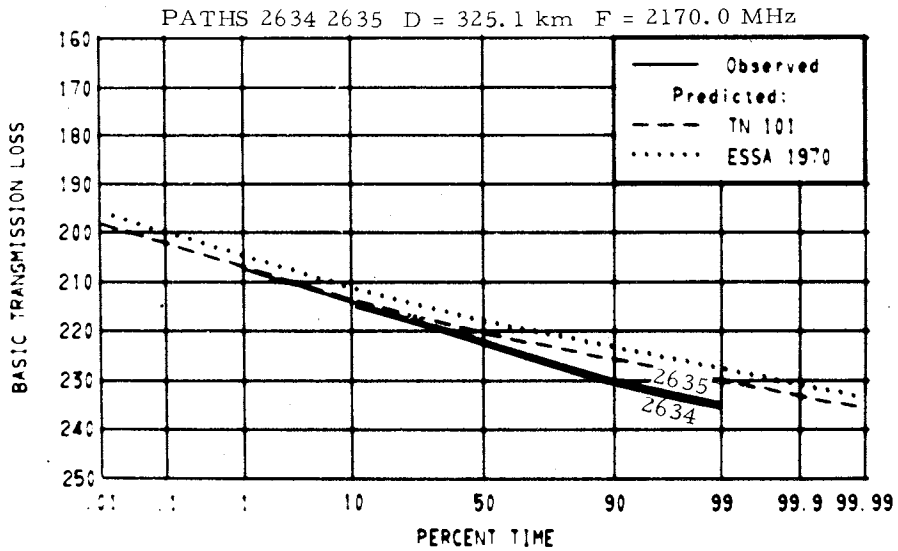
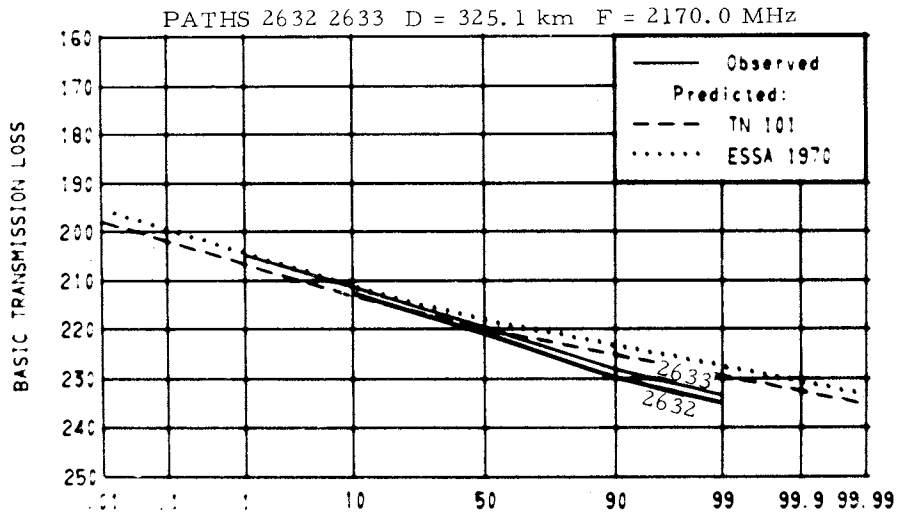
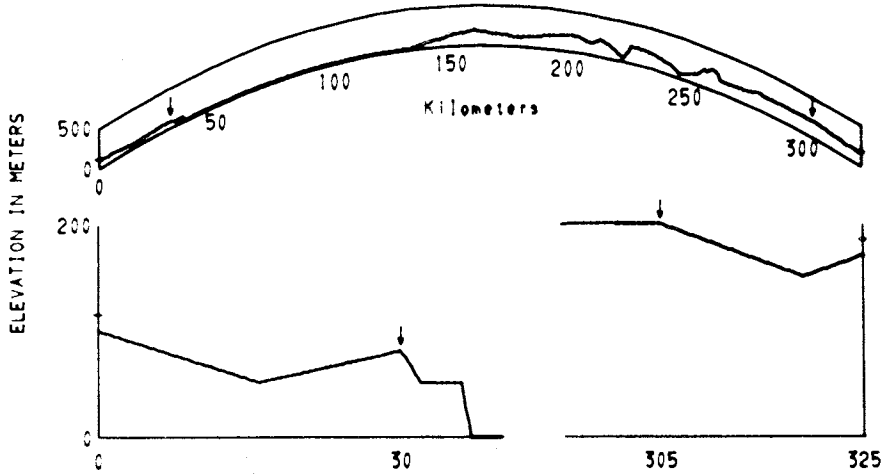


Figure 3.199 Paths 2632 to 2635

PATHS 2638 2639 LANNION FR - LAFERTE SOUS JOUARRE FR

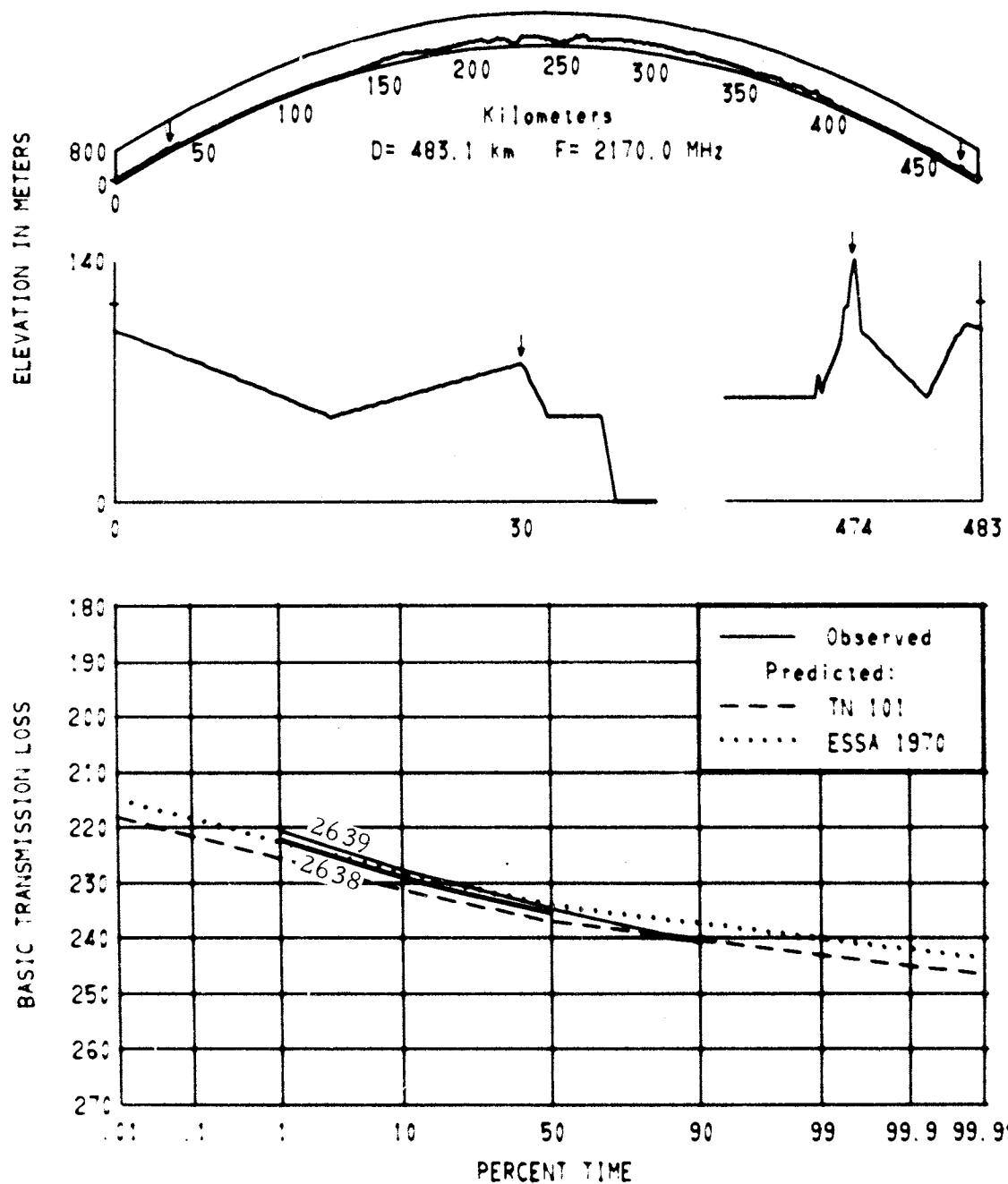


Figure 3.200 Paths 2638 2639

PATH 1537 SAVONA ITALY - COLTANO ITALY

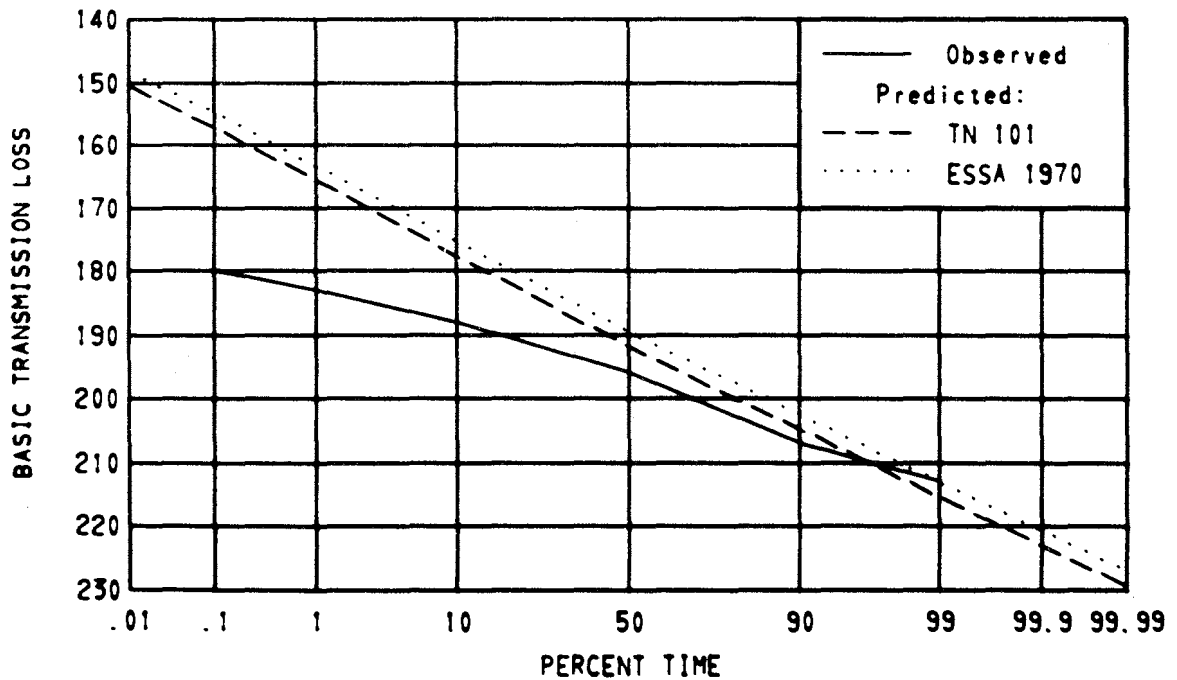
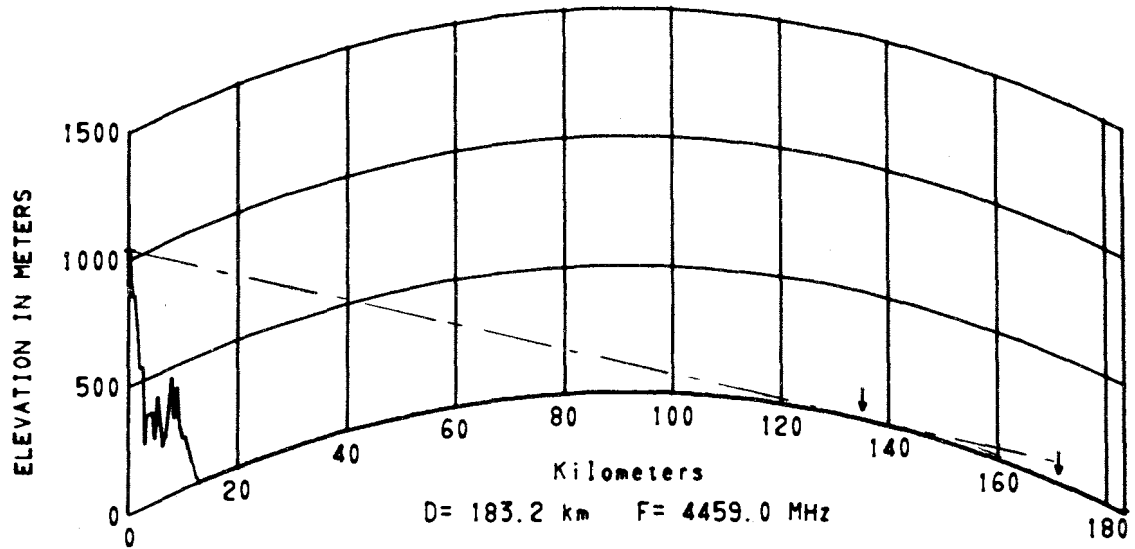


Figure 3.201 Path 1537

